

ENVIRONMENTAL ASSESSMENT
STAND-UP AND OPERATIONS OF THE
MARITIME SAFETY AND SECURITY TEAM
HONOLULU, HAWAII



COMMANDANT
UNITED STATES COAST GUARD (G-OPC)



MAY 2005

Abbreviations and Acronyms

°F	degrees Fahrenheit	MPA	Marine Protected Area
AQCR	Air Quality Control Region	MSA	Magnuson-Stevens Fisheries Conservation and Management Act
CAA	Clean Air Act	MSST	Maritime Safety and Security Team
CEQ	Council on Environmental Quality	MTS	U.S. Marine Transportation System
CEU	Civil Engineering Unit	NAAQS	National Ambient Air Quality Standards
CFR	Code of Federal Regulations	NEPA	National Environmental Policy Act
CO	carbon monoxide	NMS	National Marine Sanctuary
COMDTINST	Coast Guard Commandant Instruction	NO ₂	nitrogen dioxide
CWA	Clean Water Act	NOAA	National Oceanic and Atmospheric Administration
dB	decibel	NWR	National Wildlife Refuge
dba	A-weighted decibel	O ₃	ozone
dbc	C-weighted decibel	P.L.	Public Law
DBEDT	Hawaii Department of Business, Economic Development and Tourism	Pb	lead
DGPS	Differential Global Positioning System	PM ₁₀	Particulate Matter ≤ 10 microns in diameter
DHS	U.S. Department of Homeland Security	ppm	parts per million
DNL	Day-Night Average Sound Level	PSD	Prevention of Significant Deterioration
DOD	U.S. Department of Defense	ROI	Region of Influence
DOT	U.S. Department of Transportation	SIP	State Implementation Plan
EA	Environmental Assessment	SP	State Park
EEZ	Exclusive Economic Zone	SO ₂	sulfur dioxide
EFH	Essential Fish Habitat	tpy	tons per year
EIS	Environmental Impact Statement	U.S.C.	United States Code
EO	Executive Order	USACE	U.S. Army Corps of Engineers
ESA	Endangered Species Act	USCG	United States Coast Guard
FBI	Federal Bureau of Investigation	USEPA	U.S. Environmental Protection Agency
FFMZ	Federal Fishery Management Zone	USFWS	U.S. Fish and Wildlife Service
FONSI	Finding of No Significant Impact	VOC	volatile organic compounds
ft ²	square feet	μg/m ³	micrograms per cubic meter
FR	Federal Register	μPa	microPascal
FY	fiscal year	μPa-m	microPascal at 1 meter
HAPC	Habitat Area of Particular Concern	MOA	Memorandum of Agreement
Hz	Hertz	NO _x	nitrogen oxide
ISC	Integrated Support Command	NCCR	National Coastal Condition Report
kHz	kilo-Hertz	NP	National Park
Leq(24)	24-hour Equivalent Sound Level	NWHI	Northwest Hawaiian Islands
mg/m ³	milligrams per cubic meter	WPFMC	Western Pacific Fisheries Management Council
MHLS	Maritime Homeland Security		
MLCD	Marine Life Conservation District		
MMPA	Marine Mammal Protection Act		

**ENVIRONMENTAL ASSESSMENT OF THE
STAND-UP AND OPERATIONS
OF THE
MARITIME SAFETY AND SECURITY TEAM
HONOLULU, HAWAII**

Contract No.: DTCG23-02-D-EXB001

Prepared for

**Commandant
United States Coast Guard (G-OPC)
2100 Second Street, SW
Washington, DC 20593-0001**

Prepared by



e²M, Inc.

3949 Pender Drive, Suite 120
Fairfax, VA 22030

FEBRUARY 2005

THIS PAGE INTENTIONALLY LEFT BLANK

**ENVIRONMENTAL ASSESSMENT OF THE STAND-UP AND OPERATIONS OF THE
MARITIME SAFETY AND SECURITY TEAM
HONOLULU, HAWAII**

TABLE OF CONTENTS

Abbreviations and Acronyms	Inside Front Cover
1. PURPOSE OF AND NEED FOR THE ACTION	1-1
1.1 Introduction.....	1-1
1.2 Coast Guard Missions	1-2
1.3 Purpose and Need for the Action	1-4
1.3.1 Purpose of the Action	1-4
1.3.2 Need for the Action.....	1-5
1.4 Project Scope and Area.....	1-5
1.5 Agency and Public Involvement Process.....	1-6
1.6 Summary of Key Environmental Compliance Requirements	1-6
1.6.1 National Environmental Policy Act of 1969.....	1-6
1.6.2 Integration of Other Environmental Statutes and Regulations	1-9
1.7 Organization of the EA	1-9
2. PROPOSED ACTION AND ALTERNATIVES.....	2-1
2.1 Proposed Action.....	2-1
2.1.1 Overview of the Proposed Action.....	2-1
2.1.2 MSST Personnel and Operations	2-1
2.1.3 Standard MSST Boats and Equipment	2-4
2.1.4 Onshore Homeport Facilities	2-4
2.2 No Action Alternative.....	2-7
2.3 Comparison of Alternatives	2-7
2.4 Comparison of Environmental Effects of All Alternatives.....	2-10
2.5 Alternatives Considered but Eliminated	2-10
3. AFFECTED ENVIRONMENT.....	3-1
3.1 Introduction.....	3-1
3.1.1 Resources for Analysis	3-1
3.1.2 Region of Influence	3-3
3.1.3 Environmental Regulations, Laws, and Executive Orders	3-4
3.2 Biological Resources	3-4
3.2.1 Definition of the Resource.....	3-4
3.2.2 Affected Environment.....	3-9
3.3 Air Quality and Climate.....	3-18
3.3.1 Definition of the Resource.....	3-18
3.3.2 Affected Environment.....	3-19
3.4 Noise	3-21
3.4.1 Definition of the Resource.....	3-21
3.4.2 Affected Environment.....	3-24
3.5 Public Safety	3-25

3.5.1	Definition of the Resource.....	3-25
3.5.2	Affected Environment.....	3-26
4.	ENVIRONMENTAL CONSEQUENCES.....	4-1
4.1	Introduction.....	4-1
4.2	Biological Resources	4-1
4.2.1	Significance Criteria	4-1
4.2.2	Potential Impacts.....	4-5
4.3	Air Quality and Climate.....	4-13
4.3.1	Significance Criteria	4-13
4.3.2	Potential Impacts.....	4-13
4.4	Noise	4-17
4.4.1	Significance Criteria	4-17
4.4.2	Potential Impacts.....	4-17
4.5	Public Safety	4-19
4.5.1	Significance Criteria	4-19
4.5.2	Potential Impacts.....	4-20
5.	CUMULATIVE IMPACTS.....	5-1
5.1	Cumulative Impacts Methods	5-1
5.2	Cumulative Impacts Analysis	5-1
6.	PREPARERS	6-1
7.	REFERENCES.....	7-1

APPENDICES

- A – Interested Party Letter, Mailing List, Newspaper Announcement, and Supplement**
- B – Agency Consultation Letters**
- C – Environmental Regulations, Laws, and Executive Orders**
- D – USCG Protected Living Marine Resources Guidance**
- E – Air Quality Analysis**

FIGURES

1-1. Honolulu MSST Homeport Location Map.....	1-7
1-2. Honolulu MSST Region of Influence	1-8
2-1. Photographs of the Public Boat Launch at Keehi Lagoon	2-2
2-2. Parking area at the Public Boat Launch at Keehi Lagoon.....	2-3
2-3. Photographs of Typical Defender Class Boats.....	2-5
2-4. Examples of Proposed MSST On-Shore Facilities	2-6
2-5. Photographs of Proposed MSST On-Shore Facilities	2-8

TABLES

2-1. Impact Summary Matrix	2-11
3-1. Marine Mammals Known to Inhabit the ROI	3-11
3-2. Sea Turtles Known to Inhabit the ROI.....	3-13
3-3. Fish and Invertebrate Species with EFH in the ROI	3-16
3-4. National Ambient Air Quality Standards	3-19
3-5. Current AQCR Annual Emissions Inventory Data for State of Hawaii AQCR.....	3-20
3-6. Climate Summary for State of Hawaii	3-20
3-7. Underwater Sound Pressure Levels for Various Vessels	3-25
3-8. Amount of Waterborne Cargo Handled by Hawaiian Ports in 2002.....	3-27
4-1. USCG MSST—Honolulu Emissions from Proposed Action.....	4-16
4-2. Net Emissions Changes for State of Hawaii AQCR Under the Proposed Action.....	4-16
5-1. Cumulative Effects on Resources	5-3

THIS PAGE INTENTIONALLY LEFT BLANK

1. Purpose of and Need for the Action

1.1 Introduction

The United States Coast Guard (USCG) is proposing to stand-up (establish and operate) a Maritime Safety and Security Team (MSST) at the Port of Honolulu, Hawaii. MSSTs provide waterborne (and a modest level of shoreside) antiterrorism/force protection for strategic shipping, high interest vessels, and critical infrastructure. MSSTs are a quick response force capable of rapid, nationwide deployment via air, ground, or sea transportation in response to changing threat conditions and evolving Maritime Homeland Security (MHLS)¹ mission requirements. The MSST's primary missions are port safety and security, and maritime law enforcement. Secondary missions are search and rescue, and naval coastal warfare (USCG 2004a). The MSST would consist of approximately 77 active duty personnel, construction of two support buildings on previously disturbed lands, six Defender Class Boats, and other support equipment (see Section 2.1 for a detailed description of the Proposed Action).

The USCG, one of the country's five armed services, is this nation's oldest maritime agency, and is a unique agency of the Federal government. The USCG was formed on August 4, 1790, when the first Congress authorized the construction of 10 vessels to enforce tariff and trade laws, prevent smuggling, and protect the collection of the Federal revenue. Known previously as the Revenue Marine and the Revenue Cutter Service, the USCG expanded in size and responsibilities as the nation grew. These added responsibilities included humanitarian duties such as aiding mariners in distress, enforcing laws against slavery and piracy, protecting the marine environment, exploring and policing Alaska, and charting the growing nation's coastlines, all well before the turn of the 20th century.

The service received its present name in 1915 when the Revenue Cutter Service merged with the Life-Saving Service. The nation then had a single maritime service dedicated to saving lives at sea and enforcing the nation's maritime laws. The USCG has continued to protect the nation throughout its long history and has served proudly in every one of the nation's conflicts. National defense responsibilities remain one of the USCG's most important functions.

¹ Maritime Homeland Security (MHLS) is the concerted national effort lead by the USCG to secure the homeland associated with or in the U.S. Maritime Domain from terrorist attacks.

Today, the USCG operates in all maritime regions:

- Approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors.
- More than 3.36 million square miles of Exclusive Economic Zone (EEZ) and U.S. territorial seas.
- International waters and other maritime regions of importance to the United States.

The events of September 11, 2001, significantly changed the nation's homeland security posture. Terrorism is a clear and present danger to the United States. On March 1, 2003, in response to growing national security demands, the newly formed U.S. Department of Homeland Security (DHS) assumed control of the USCG from the U.S. Department of Transportation (DOT) in the largest reorganization of the Federal government since the 1940s (Public Law [P.L.] 107-296). The USCG is the lead Federal agency for MHLS and has dramatically shifted its mission activity to reflect this role. The USCG's heightened maritime security posture will remain in place indefinitely.

1.2 Coast Guard Missions

The USCG is unique in that it is the only maritime service with regulatory and law enforcement authority, military capabilities, and humanitarian operations. USCG activities in warfare encompass critical elements of naval operations in littoral regions, including port security and safety, military environmental response, maritime interception, coastal control, and force protection. More than two centuries of littoral warfare operations at home and overseas have honed the USCG's skills most needed in support of the nation's military and naval strategies for the 21st century. The USCG's missions include maritime law enforcement, maritime safety, national defense, and marine environmental protection.

Under the newly formed DHS, one of the USCG's primary missions is to protect the U.S. Maritime Domain² and the U.S. Marine Transportation System³ (MTS) and deny their use and exploitation by terrorists as a means for attacks on U.S. territory, population, and critical infrastructure. The Maritime Transportation Security Act of 2002 contains several provisions relating to the USCG's role in MHLS. It creates a U.S. maritime security system and requires Federal agencies, ports, and vessel owners to take numerous steps to upgrade security. The Maritime Transportation Security Act

² The U.S. Maritime Domain encompasses all U.S. ports, inland waterways, harbors, navigable waters, Great Lakes, territorial seas, contiguous waters, custom waters, coastal seas, littoral areas, the U.S. Exclusive Economic Zone, and oceanic regions of U.S. national interest, as well as the sealanes to the United States, U.S. maritime approaches, and high seas surrounding the nation.

³ The U.S. Marine Transportation Systems (MTS) consists of waterways, ports, and their intermodal connections, vessels, vehicles, and system users, as well as Federal maritime navigation systems.

required the USCG to develop national and regional area maritime transportation security plans; it also required ports, waterfront terminals, and certain types of vessels to submit security and incident response plans to the USCG for approval.

The USCG has several additional roles:

- Protect ports, the flow of commerce, and the marine transportation system from terrorism.
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction.
- Ensure that U.S. military assets can be rapidly deployed and resupplied by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit of assets and personnel from other branches of the armed forces.
- Protect against illegal fishing and indiscriminate destruction of living marine resources.
- Prevent and respond to oil and hazardous material spills—both accidental and intentional.
- Coordinate efforts and intelligence with Federal, state, and local agencies.

In response to the increased homeland security threat level, the USCG is engaged in Operations Liberty Shield and Iraqi Freedom. Operation Liberty Shield is a multidepartment, multiagency, national team effort to protect American citizens and infrastructure while minimizing disruption to our economy and way of life. The USCG is integrating its efforts within DHS and closely coordinating its efforts with those of the U.S. Department of Defense (DOD); DOT; the Federal Bureau of Investigation (FBI); and other Federal, state, and local security and law enforcement agencies to ensure the security of national ports, waterways, and facilities. Hundreds of USCG cutters, aircraft, and small boats manned by thousands of USCG active duty and reserve members are guarding coasts, ports, and waterways around the clock during this heightened state of alert.

Overseas, the USCG is playing a crucial role supporting the other military services in the implementation of Operation Iraqi Freedom. Several USCG cutters, aircraft, reserve, and active duty personnel are currently deployed in the Persian Gulf region and in the Mediterranean to perform waterside security, maritime force protection, and environmental response duties.

In addition, the USCG and DOD are partners in two major actions: Operation Enduring Freedom and Operation Noble Eagle. Operation Enduring Freedom generally refers to U.S. military operations associated with the war on terrorism outside the United States. Operation Noble Eagle generally refers to U.S. military operations associated with homeland defense and civil support to Federal, state, and local agencies in the United States, and includes the increased security measures taken after the terrorist attacks on September 11, 2001. The operation involves joint agency coordination and

cooperation to ensure our nation and its borders are protected from future attacks. The increased USCG maritime security presence prevents and deters those who would cause harm to innocent Americans.

1.3 Purpose and Need for the Action

1.3.1 Purpose of the Action

The USCG is at a heightened state of alert, protecting more than 361 ports and 95,000 miles of coastline, the nation's longest border. The USCG continues to play an integral role in maintaining the operations of our ports and waterways by providing a secure environment in which mariners and the American people can safely live and work (USCG 2002a).

The establishment of additional MSSTs would allow the USCG to perform all of its missions, especially the newly acquired homeland security missions. The MSSTs are needed to improve existing domestic port security capabilities. While the MSSTs would be used to augment existing USCG forces in the United States, the MSSTs would not duplicate existing protective measures. They would provide complimentary, nonredundant capabilities that would be able to close significant readiness gaps in the nation's strategic ports (USCG 2002b, c). USCG forces must accomplish this mission without adversely impacting the environment or unduly interfering with legitimate trade and commerce.

To determine which ports require additional protection, the USCG and other agencies developed a matrix to assess and "grade" each U.S. port to aid in the selection of the most critical ports. Elements that were assessed included the following (USCG 2002b):

- Cargo Value
- Cargo Volume
- Domestic Cargo
- Hazardous Cargo
- Military Presence
- Population

The first eight MSSTs are in Seattle, Washington; Chesapeake, Virginia; San Pedro, California; Galveston, Texas; Staten Island, New York; Boston, Massachusetts; St. Mary's, Georgia; and San Francisco, California. The next round of ports to be assigned MSSTs are New Orleans, Louisiana; San Diego, California; Honolulu, Hawaii; Miami, Florida; and Anchorage, Alaska. In addition to

these ports, the USCG is planning to stand up MSSTs in other critical ports around the country. If additional MSSTs are established around the country, additional National Environmental Policy Act (NEPA) analysis will be prepared for future stand-ups, as necessary.

1.3.2 Need for the Action

The USCG has a broad range of environmental and geographic responsibilities throughout the EEZ. In the wake of the events of September 11, 2001, the USCG assumed homeland security duties in addition to their current missions. Unfortunately, manpower and vessels to perform all missions, including these additional operations, remained the same. Currently, USCG resources are at maximum capacity and all missions (e.g., maritime border security, fisheries enforcement, and living marine resources protection) suffer, despite the USCG's attempt to maintain the previous level of effectiveness and efficiency. In some cases, current detachments of MSSTs have been temporarily assigned to other ports, leaving a detachment at the homeport to perform "double duty." When the away detachment returns, neither detachment has had the ability to rotate through a rest period, resulting in an increased demand on manpower resources. If implemented, the Proposed Action would increase port security within the Port of Honolulu and allow other USCG assets to focus on their intended missions more effectively and efficiently, since the MSST's primary responsibility would be port security and maritime law enforcement. The Proposed Action would also allow more MSSTs to remain in their homeports and maintain a regular work/rest cycle.

In 2002, under P.L. 107-87, an emergency response supplemental enacted by Congress, funds were appropriated to support USCG antiterrorist activities, including the mandated establishment and operation of four MSSTs to be completed in Fiscal Year (FY) 2002. The establishment of MSSTs in Seattle, Washington; San Pedro, California; Galveston, Texas; and Chesapeake, Virginia, helped relieve some of the demand on USCG units. However, a number of ports require further protection. Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. P.L. 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs before FY 2003. The Senate Appropriations Committee approved a \$76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

1.4 Project Scope and Area

The MSST would be permanently homeported at the USCG Integrated Support Command (ISC) Honolulu, 400 Sand Island Parkway, Honolulu, HI 96819. The MSST Defender Class Boats would be launched from a public boat ramp at Keehi Lagoon, approximately 1 mile from the ISC (see

Figure 1-1). The Region of Influence (ROI) for the Proposed Action and the No Action Alternative is geographically defined as the Port of Honolulu region, which includes the coastal waters surrounding the main Hawaiian Islands and Guam (see Figure 1-2). The MSST is expected to spend the majority of its operating time patrolling the Port of Honolulu; however, the MSST can be deployed temporarily in emergencies to protect any port facility or asset outside of the ROI. The location and duration of each individual event would depend on a number of currently unknown circumstances. There are too many variables to adequately assess all potential ports to which the MSST might be temporarily assigned. Therefore, this Environmental Assessment (EA) focuses on the potential environmental impacts within the ROI.

1.5 Agency and Public Involvement Process

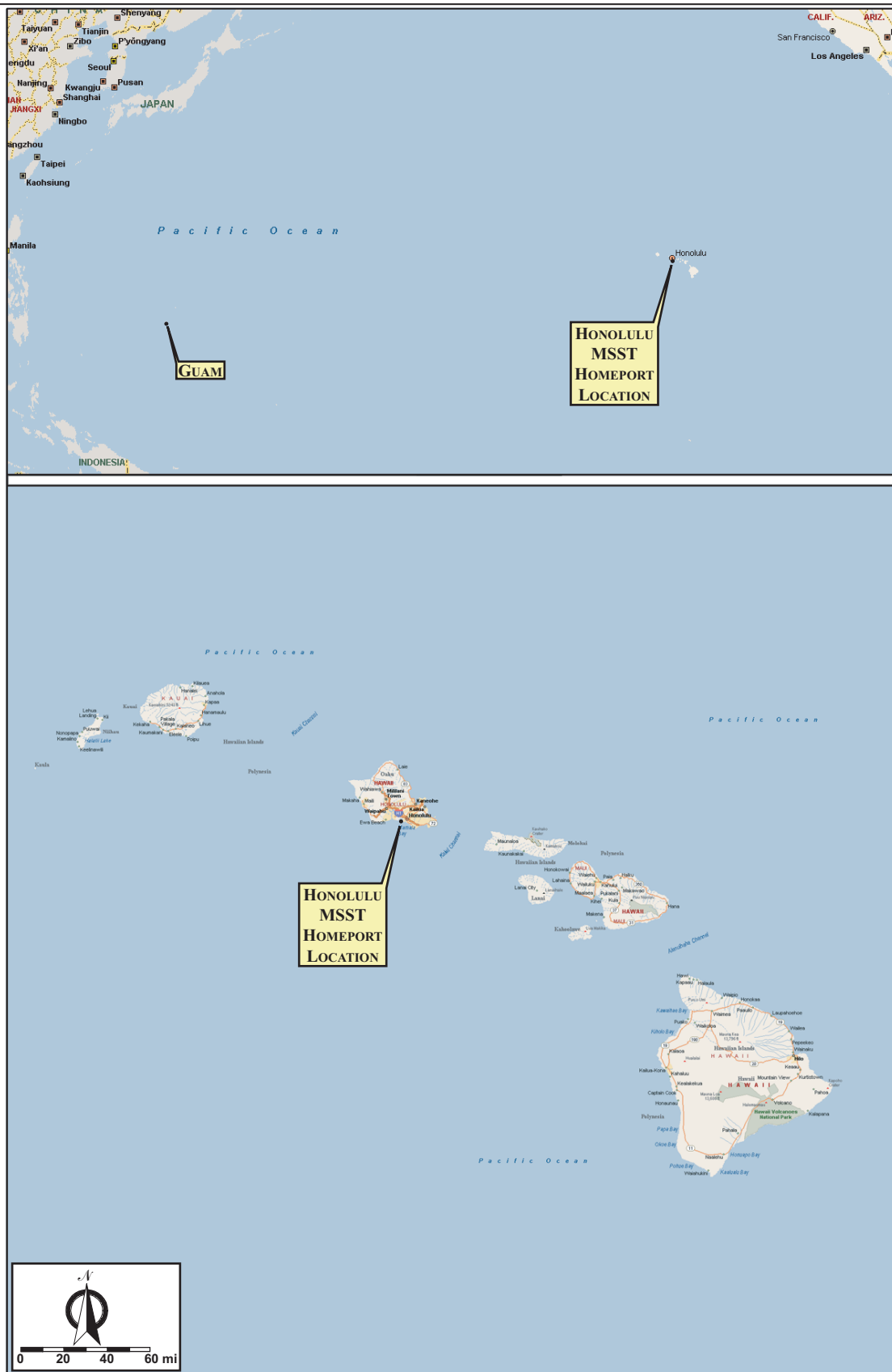
An advertisement published in the *Honolulu Advertiser* on September 1, 2004, announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties were also mailed to appropriate Federal, state, and local agencies on September 3, 2004 (see Appendix A [interested party letter with attachments, distribution list, and newspaper announcement], Appendix B [agency consultation letters]). The USCG will continue to accept comments on this Proposed Action throughout the NEPA process (discussed in Section 1.6.1). A Notice of Availability (NOA) for the Final EA and Finding of No Significant Impact (FONSI) was published on December 31, 2004, in the *Honolulu Advertiser*.

1.6 Summary of Key Environmental Compliance Requirements

1.6.1 National Environmental Policy Act of 1969

NEPA is a Federal statute requiring the identification and analysis of potential environmental impacts of proposed Federal actions before those actions are taken. NEPA also established the Council on Environmental Quality (CEQ) that is charged with the development of implementing regulations and ensuring agency compliance with NEPA. CEQ regulations mandate that all Federal agencies use a systematic interdisciplinary approach to environmental planning and the evaluation of actions that might affect the environment. This process evaluates potential environmental consequences associated with a proposed action and considers alternative courses of action. The intent of NEPA is to protect, restore, or enhance the environment through well-informed Federal decisions.

The process for implementing NEPA is codified in Title 40 of the Code of Federal Regulations (CFR) Parts 1500–1508, *Regulations for Implementing the Procedural Provisions of the National*



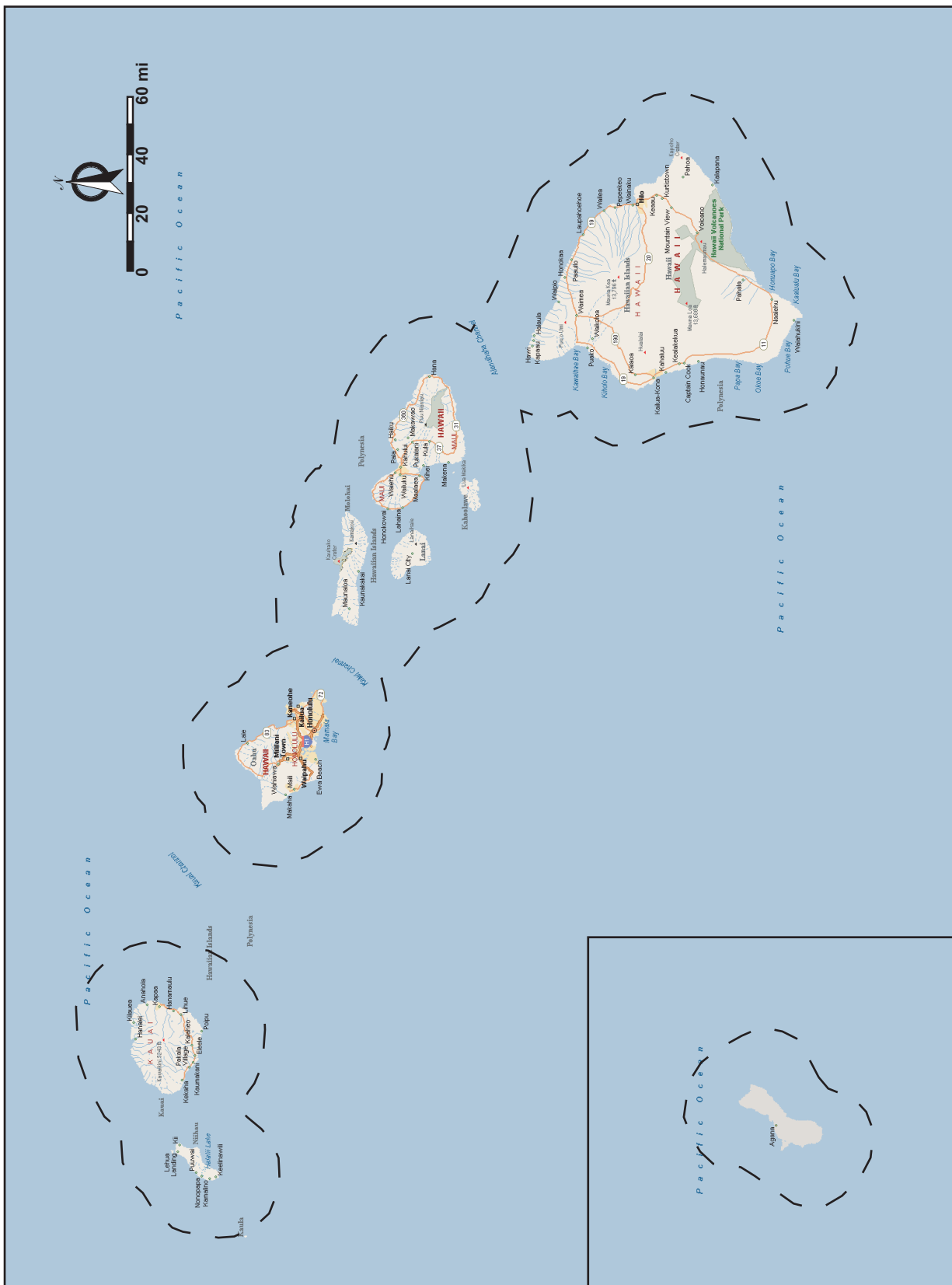


Figure 1-2. Honolulu MSST Region of Influence

Environmental Policy Act. The CEQ was established under NEPA to implement and oversee Federal policy in this process. CEQ regulations specify that the following must be accomplished when preparing an EA:

- Briefly provide evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a FONSI.
- Aid in an agency's compliance with NEPA when an EIS is unnecessary.
- Facilitate preparation of an EIS when one is necessary.

This document has been prepared to comply with NEPA requirements, the CEQ regulations for implementing NEPA and USCG policy (Commandant's Instruction [COMDTINST] M16475.1D).

1.6.2 Integration of Other Environmental Statutes and Regulations

To comply with NEPA, the planning and decisionmaking process for actions proposed by Federal agencies involves a study of other relevant environmental statutes and regulations. The NEPA process, however, does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or EIS, which enables the decisionmaker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively." Resources that will be analyzed in the EA are those identified as being potentially affected by the Proposed Action, and include applicable critical elements of the human environment whose review is mandated by Executive Order (EO), regulation, or policy (see Appendix C).

1.7 Organization of the EA

Acronyms and abbreviations are used throughout the document to avoid unnecessary length. A list of acronyms and abbreviations can be found on the inside front and back covers of this EA.

Chapter 1, Purpose of and Need for the Action. As a NEPA-required discussion, this chapter provides an overview of the action and the purpose and need of the action, describes the area in which the Proposed Action would occur, and explains the public involvement process.

Chapter 2, Proposed Action and Alternatives. This chapter describes the Proposed Action, alternatives considered, and the No Action Alternative.

Chapter 3, Affected Environment. This chapter describes the existing environmental conditions in the area in which the Proposed Action would occur.

Chapter 4, Environmental Consequences. Using the information in Chapter 3, this chapter identifies potential direct and indirect environmental impacts on each resource area under the Proposed Action and the No Action Alternative. Direct and indirect impacts that could result from the Proposed Action are identified on a broad scale as appropriate in an EA.

Chapter 5, Cumulative Impacts. This chapter discusses the potential cumulative impacts that might result from the impacts of the Proposed Action, combined with foreseeable future actions.

Chapters 6 and 7. These chapters provide references and a list of this document's preparers.

Appendices. This EA includes six appendices that provide additional information. Appendix A is a copy of the Interested Party distribution list, letter with attachments, and a copy of the newspaper announcement. Appendix B includes the correspondence relating to Endangered Species Act (ESA) consultation, Essential Fish Habitat (EFH) consultation, National Historic Preservation Act, and Federal Coastal Zone Management Consistency determination. Appendix C is a list of those regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action. Appendix D contains a description of the USCG's Ocean Steward Plan and COMDTINSTs regarding the Protected Living Marine Resource Program (16475.7) and Participation in the National Marine Sanctuary Programs (16004.3A). Appendix E includes the calculations used for the air quality analysis.

2. Proposed Action and Alternatives

2.1 Proposed Action

2.1.1 Overview of the Proposed Action

The USCG proposes to stand up and operate an MSST. The term “stand up” is defined as establishing a new activity. The Proposed Action consists of the following components:

- Assignment of 77 active duty personnel to operate the MSST within the Port of Honolulu and the ROI.
- Standard MSST equipment to include six Defender Class Boats and trailers, four pickup trucks, four stakebed trucks, three passenger vans, and other minor support equipment.
- Construction of two pre-engineered buildings: a boat storage and dive shop facility (approximately 5,000 square feet [ft²] by 20 feet high, single story), and an administrative support facility (approximately 5,000 ft², single story).

2.1.2 MSST Personnel and Operations

The MSST would consist mostly of reassigned personnel, although there might be some newly recruited personnel. MSST personnel would possess the specialized skills, capabilities, and expertise to perform a broad range of port security and harbor defense missions that might be required. The MSST would be interoperable with, and supported by, military and civilian government organizations, and commercial and nongovernmental entities.

The MSST would operate primarily within its ROI, which is defined as the Port of Honolulu and the coastal waters surrounding the main Hawaiian Islands and Guam. The MSST could also be deployed temporarily in emergencies to other ports as needed. The MSST would be transported to Guam or other locations outside of Hawaii by C-5 aircraft operating from Hickam Air Force Base, Honolulu. Depending on operational requirements, there could be two to six boats operating at any time. However, it is anticipated that the Defender Class Boats would operate 12 hours a day, 7 days per week, and that there would be two to three boats operating at any given period. Most MSST operations would be conducted at 10-12 knots. The Defender Class Boats would be launched from the public boat ramp at Keehi Lagoon (see Figures 2-1 and 2-2). The MSST would primarily be responsible for patrolling the established ship channels and escorting tankers and cruise ships.

The MSST would train in an area between 3 and 10 miles offshore, in the coastal waters spanning from the entrance to Pearl Harbor Bay to Diamond Head. USCG personnel would follow procedures



Figure 2-1. Photographs of the Public Boat Launch at Keehi Lagoon



Figure 2-2. Parking area at the Public Boat Launch at Keehi Lagoon

already familiar to them, including establishing port security and port safety zones, moving security zones, and escorting vessels. The USCG performs these traditional port security operations on a daily basis. The MSST would have additional responsibilities as follows:

- Enhance port security and security law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture of a limited duration.
- Exercise security contingency plans in major ports.
- Augment the Captain of the Port capabilities.

The MSST would be prepared to conduct operations through all maritime security levels; be capable of operating under the threat of chemical, biological, or radiological attack; and be able to evacuate a contaminated environment. The MSST would have the ability to conduct emergency gross decontamination of personnel and equipment. In the United States, the local emergency response agency is responsible for mitigating incidents involving chemical, biological, and radiological hazardous materials. Overseas support is provided through a Memorandum of Understanding with other service branches.

2.1.3 Standard MSST Boats and Equipment

The MSST would be equipped with six Defender Class Boats and standard support vehicles and equipment. Each Defender Class Boat is 25 feet long with an 8-foot beam and a 4-foot navigational draft and would be equipped with two 225-horsepower Honda outboard motors, radar, depth sounder, differential global positioning system (DGPS), and two mounted M240 machine guns (see Figure 2-3). The Defender Class Boats are highly maneuverable, and capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers, plus an additional seven passengers. MSST equipment would also include boat trailers, four Ford F-350 and four F-550 stake-bed trucks with trailers, and three 15-passenger vans. When not in use, the Defender Class Boats would be on trailers at their on-shore support facility.

2.1.4 Onshore Homeport Facilities

The Honolulu MSST would be permanently located at the USCG ISC Honolulu. The ISC is on 40.76 acres on Sand Island, off the south shore of Oahu (USCG 1992a). Sand Island is zoned for industrial use. All property on Sand Island is owned either by the state or by the Federal government. Other entities on Sand Island are the city and county of Honolulu's Sand Island Waste Water Treatment Plant, a container yard and marginal wharf, general industry, and the Sand Island State Recreational Area (Honolulu 2001).

Establishment of the MSST would involve the construction of a pre-engineered building (approximately 5,000 ft² by 20 feet high) for boat storage and dive shop facilities, as well as the construction of a temporary pre-engineered modular building (approximately 5,000 ft², single story) for administrative support facilities (see Figure 2-4).

Construction of the boat storage and dive shop facility would entail site preparation; excavation and fill; concrete foundation; concrete floor slab; floor drains; gutters; roll-up doors; windows; louvers; lighting, electrical, communication/data, ventilation, and air conditioning systems; interior office and toilet space; a utility area for a breathing air compressor unit and SCUBA tanks; exterior security lighting and hose bibs; exterior utility connections for sewer, water, electrical, and communication/data systems; and miscellaneous related work required for a complete and useable facility. The facility would provide a storage/maintenance/shop area for three trailered boats with drive-through capability and a dive shop/drying area.



Figure 2-3. Photographs of Typical Defender Class Boats



Figure 2-4. Examples of Proposed MSST On-Shore Facilities

Construction of the administrative support facility would entail hold-down anchors; landing and stairs; doors; windows; lighting, electrical, communication/data, ventilation, and air conditioning systems; floor and wall covering; ceiling; painting; exterior utility connections for sewer, water, electrical, and communication/data systems; and miscellaneous related work for a complete and useable facility. The facility would provide office rooms and areas, locker/shower/restroom areas, meeting/conference room, chart room, telephone/communications and utility room, and a kitchen area. The location for the two proposed buildings on the ISC is currently a paved parking area (see Figure 2-5). The proposed MSST facilities would be surrounded by a shooting range on the west, parking areas to the north and south, and barracks to the east.

2.2 No Action Alternative

NEPA implementing regulations require that a No Action Alternative be analyzed to provide a baseline for comparison with the action alternatives. The No Action Alternative identifies and describes the potential environmental impacts if the proponent agency does not implement the Proposed Action or one of the other action alternatives, if applicable. The continuation of the existing conditions without implementation of the Proposed Action is referred to as the No Action Alternative.

For the purposes of this project, the No Action Alternative is defined as not establishing an MSST in Honolulu. The No Action Alternative serves as the benchmark against which Federal actions can be evaluated. Inclusion of the No Action Alternative is prescribed by the CEQ regulations and, therefore, will be carried forward for further analysis in this EA.

Selection of the No Action Alternative would not meet Congressional intent for increased homeland defense. Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. As stated previously, P.L. 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs before FY 2003. The Senate Appropriations Committee approved a \$76 million budget for seven MSSTs in FY 2004 (Senate Report 108-086).

2.3 Comparison of Alternatives

The Proposed Action to stand up and operate an MSST in Honolulu, Hawaii, has the potential for beneficial impacts on security and safety. First, the MSST would provide added security from terrorist attacks for ships entering or leaving the Port of Honolulu, numerous commercial interests, and the general population who work and live in and near the port. Second, the Proposed Action would provide additional protection from potentially significant environmental damage resulting from infrastructure damaged or destroyed in a terrorist attack. While the addition of six boats in the ROI might appear to be a large increase, this is actually a small number when compared to the number and size of vessels that visit the Port of Honolulu.

It is unlikely that all six boats would be in use at any one time. The boats would normally cruise at 10 to 12 knots, resulting in a small wake that should not adversely impact the surrounding shores. Furthermore, the USCG has existing measures in place, such as the Ocean Steward Program to guard against adverse vessel impacts on marine protected species (see Appendix D). The purpose of Ocean Steward, the USCG's national strategic plan, is to help the recovery and maintenance of marine



Figure 2-5. Photographs of Proposed MSST On-Shore Facilities

protected species to achieve healthy, sustainable populations. The MSST would improve existing USCG security capabilities throughout the ROI. The MSST would not duplicate existing protective measures, but would provide complementary capabilities that would be able to close significant readiness gaps in our nation's strategic ports.

Under the No Action Alternative, the added safety and security provided by the MSST would not be available. While the USCG would continue with their current level of protection, this level has already been determined to be inadequate for the Port of Honolulu. The potential environmental damage from a terrorist attack might be adverse.

If the No Action Alternative was selected, as described above, it would not fulfill the USCG's purpose and need to provide additional port security. Under current operations, vessels and manpower are being diverted from other missions to provide additional security for the nation's ports. Under the No Action Alternative, this disruption of other missions would continue. The result would be further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity could facilitate an attack at one of the "critical" ports. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports, creating health and safety hazards for the surrounding populace and impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long-lasting (disruption of commerce activities) and could impact the long-term economy. Recovery time would depend on the severity and extent of the loss.

Other consequences would result from the USCG being unable to fully perform enforcement missions. For example, the USCG is responsible for drug and alien interdiction and protection of the nation's EEZ. Without adequate vessels and manpower, the USCG would not be able to maintain its high level of effectiveness in stopping illegal aliens and drugs from reaching the nation's shores. Similarly, the USCG would not be able to adequately protect fisheries resources from illegal catches, as directed by its Ocean Guardian Program. Ocean Guardian is a long-range fisheries law enforcement strategy that supports national goals for fisheries resource management and conservation. In addition, adverse impacts on threatened and endangered species could occur if the USCG is unable to maintain its current level of effectiveness in enforcing the ESA and associated regulations in U.S. waters as directed by its Ocean Steward Program. Ocean Steward is the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species (Appendix D).

2.4 Comparison of Environmental Effects of All Alternatives

Table 2-1 summarizes the impacts of the Proposed Action and No Action Alternative.

2.5 Alternatives Considered but Eliminated

The USCG Civil Engineering Unit (CEU) planning team worked with USCG units, other government agencies and local governments to create a preliminary list of potential MSST locations based on planning factors derived from the standup of previous MSSTs. The USCG considered other homeport locations for the Honolulu MSST before selecting the ISC Honolulu as its preferred alternative. Alternatives considered included:

- Leasing space from the U.S. General Services Administration (GSA) was considered but eliminated due to the high costs of GSA-leased space (approximately \$30/ ft²/year). This option would also not meet the MSST needs for shop space.
- Air Station Barbers Point was considered as a potential location but found not to be viable due to its distance from Honolulu Harbor, would not provide waterfront access, and would not meet all needed support functions.
- Relocating MSO Honolulu to the ISC and moving the administrative personnel from MSST Honolulu into the MSO Building was also evaluated but eliminated. This alternative would require rehabilitating the existing MSO Honolulu Building, a 15,000 square foot structure located in downtown Honolulu in at Pier 4. The MSO Building is not large enough to provide storage and shop space for the MSST's boats and vehicles, and would only be suitable to support the MSST's administrative facility requirements. Travel time between the MSO Building and ISC Honolulu and the boat ramp is between 30 minutes and one hour, depending on traffic conditions. The physical separation would also impact MSST performance.
- Locating the MSST in an existing facility at the ISC Honolulu was considered, but no existing facilities were identified that had sufficient room to house the MSST.

Other agencies besides the USCG could have been considered for the Proposed Action. However, domestic port security has been a core mission of the USCG for more than 200 years. A Memorandum of Agreement (MOA), signed in October 1995 by the Secretaries of Transportation and Defense, the Chief of Naval Operations, and the Commandant of the USCG, identified those unique national defense capabilities of the USCG as a force provider. In addition, the USCG is the only U.S. maritime agency with regulatory and law enforcement authority that also has military capabilities. The USCG already uses the same tactics for harbor defense and port security that the MSSTs would be using. This recognition of the USCG's unique capabilities, coupled with the long-time advantage of providing security for U.S. ports, makes the USCG the natural choice to fulfill this mission.

This EA will assess the potential impacts of the USCG establishing and operating an MSST in the Honolulu region.

Table 2-1. Impact Summary Matrix

Resource Area	Proposed Action	No Action Alternative
Biological Resources	Implementation of the Proposed Action would have minor adverse impacts on biological resources in the Honolulu ROI. Current USCG environmental policies, regulations, and programs designed to protect living marine species (e.g., Ocean Steward in Appendix D and speed guidance designed to avoid collisions with marine mammals) would continue to be followed. Additionally, these boats are designed to be highly maneuverable. Therefore, the stand-up and operations of the MSST would not have major adverse impacts on biological protected marine resources or habitats.	Under the No Action Alternative, it would be easier for a terrorist attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on marine mammals. Recovery time would depend on the extent of loss.
Water Quality	The Proposed Action would have a negligible impact on water quality due to emissions from Defender Class Boat engines during normal operations.	Under the No Action Alternative, ambient water quality conditions would not be impacted. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on the noise environment. Recovery time would depend on the severity and extent of the impact.
Air Quality	Under the Proposed Action, minor adverse impacts on air quality would occur. Calculations of air pollutant emissions from the proposed MSST operations were performed based on transporting boats from the Honolulu ISC to the public boat ramp at Keehi Lagoon, and operating two boats 24 hours a day, 365 days a year. The net change in nitrogen oxide (NO _x) and volatile organic compounds (VOC) emissions would be well below the <i>de minimis</i> threshold requirements and the regional significance requirements of the General Conformity Rule.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on air quality. Recovery time would depend on the severity and extent of the impact.

Table 2-1. Impact Summary Matrix (continued)

Resource Area	Proposed Action	No Action Alternative
Noise	Implementation of the Proposed Action would result in minor adverse impacts. However, due to low speed approach, docking at USCG facilities and the fact that most operations would be conducted at 10 to 12 knots, the potential noise from the addition of six Defender Class Boats would have minor adverse impacts on humans or marine life. Sound levels created by the Defender Class Boats would be well below sound intensities associated with disturbance to marine animals.	Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. Adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for adverse effects on the noise environment.
Public Safety	Beneficial impacts might be expected from the Proposed Action. The Proposed Action would increase the USCG's ability to protect critical domestic ports and the MTS from warfare and terrorist attacks. While the MSST's operations would closely parallel USCG traditional port security operations, they would also provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. The MSST would escort a variety of vessels and maintain specific security zones.	Under the No Action Alternative, existing conditions would remain as is, and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on public safety. Terrorists could strike at military or commercial facilities in the ROI creating health and safety hazards for the surrounding populace. The impacts could be immediate or long lasting. Recovery time would depend on the severity and extent of the impact.

3. Affected Environment

3.1 Introduction

3.1.1 Resources for Analysis

This chapter describes the environmental and socioeconomic conditions most likely to be affected by the Proposed Action and serves as a baseline from which to identify and evaluate potential impacts from implementation of the Proposed Action. In compliance with NEPA, CEQ, and USCG regulations and guidelines, the description of the affected environment focuses on those conditions and resource areas that are potentially subject to impacts. These resources include water resources, soils and land use, socioeconomics, environmental justice, cultural and historic resources, hazardous materials and hazardous wastes, biological resources, air quality and climate, noise, and public safety. Some environmental resources and conditions that are often analyzed in an EA have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- **Water Resources.** The Proposed Action does not involve any activities that would significantly increase the demand for water resources or affect surface water or groundwater. Minor, short-term impacts on water quality might arise during construction of the administrative and boat storage facilities; however, sediment and erosion control plans and Best Management Practices would limit the potential for adverse impacts on water quality. A review of the appropriate Flood Insurance Rate Map indicates that the location of the proposed on-shore facilities are in Zone X, which corresponds to areas outside the 100-year floodplain, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. Therefore, the Proposed Action should not be subject to EO 11988, *Floodplain Management*. The Proposed Action could also have a minor impact on water quality in the ROI as a result of the emissions of outboard engines. Hawaii does not have a comprehensive coastal monitoring program, but, in 1998, it assessed coastal water quality within 100 percent of its estuarine and 84 percent of its shoreline areas. As reported in the U.S. Environmental Protection Agency's (USEPA) National Coastal Condition Report (NCCR), Hawaii's coastal water quality is classified as either good or poor, depending on the location (USEPA 2001). Highly-developed areas, such as the Port of Honolulu, are impaired by pollution, nutrient loading and habitat degradation. As a result, operation of the Defender Class Boats would have minor impacts on water resources. Compared to the high volume of boat traffic and other activities within the Port of Honolulu, potential impacts from Defender Class Boat operations would be relatively small. No significant impacts would occur as a result of the implementation and use of the MSST. Accordingly, the USCG has omitted detailed analysis of floodplains and water resources.
- **Soils.** Prior to the dredging and filling of Honolulu harbor, the original Sand Island area consisted of submerged coral reefs, mud flats, and islands of varying sizes, shapes, and elevations. The surface and substrata soils within the ISC consist mostly of fill material from past dredging operations; this fill material is characterized by silty sand and coral gravel,

which has high porosity and permeability. The condition of the landfill varies due to the incremental formation of Sand Island. On older sections, some topsoil is sustaining vegetation, whereas in newer sections the vegetation is minimal. According to the soil survey for Oahu, the land type of the ISC is classified as fill land, mixed, and is used for urban development including airports, housing areas, and industrial facilities. This land type occurs mostly near Pearl Harbor and in Honolulu adjacent to the ocean (USCG 1992a). A 1989 geotechnical engineering evaluation of the subsoil conditions at the USCG base at Sand Island found the soils suitable to support the foundations for one or two-story buildings of the type proposed (USCG 1992a). Implementation of the Proposed Action would not impact existing soil or geological conditions. Accordingly, the USCG has omitted detailed examination of soils.

- **Land Use.** The USCG presence on Sand Island dates to about 1929 when the Lighthouse Service Depot had a 4.5-acre plot for buoy storage on Sand Island. All property on Sand Island is owned either by the state or by the Federal government. Other entities on Sand Island are the city and county of Honolulu's Sand Island Waste Water Treatment Plant, a container yard and marginal wharf, general industry, and the Sand Island State Recreational Area (Honolulu 2001). Sand Island is zoned for industrial use, and the Proposed Action is similar to existing USCG ISC activities. Implementation of the Proposed Action would not alter the existing land use at these locations. Accordingly, the USCG has omitted detailed examination of land use.
- **Socioeconomics.** The Proposed Action would not involve any activities that would contribute to significant changes in socioeconomic resources. The majority of the 77 active duty personnel would be reassigned personnel and, therefore, already reside in the Port of Honolulu region. It is unlikely that the reassignment of personnel would have a significant adverse impact on the region, due to the relative size of the population affected and the low unemployment rate of the region. Accordingly, the USCG has omitted detailed examination of socioeconomics.
- **Environmental Justice.** Implementation of the Proposed Action would not result in adverse impacts in any environmental resource area that would, in turn, be expected to affect disproportionately minority and low-income populations. There are no private residences on Sand Island; therefore, no low-income or minority populations could be housed and no impacts would be expected. Accordingly, the USCG has omitted detailed examination of environmental justice.
- **Cultural and Historic Resources.** There are no sites on Sand Island listed on the State of Hawaii or the National Register of Historic Places. Since the island is man-made, it is unlikely that any feature of prehistoric or early historic archaeological significance exists there. The original Quarantine Island was located at the central portion of the present day Sand Island. The site of the old quarantine station has some historical significance because of its use for housing immigrants at the turn of the century, and, more recently, residents of Japanese ancestry during World War II. However, this site is near the center of the island, well outside the ISC property. Defense facilities constructed on Sand Island during World War II still remain near the shore. Similar structures at the southeastern end of Sand Island were evaluated for possible eligibility for the National Register as part of the planning process for a 1982 U.S. Army Corps of Engineers (USACE) shore protection study. They were determined by the Keeper of the Register not to be eligible for the National Register (USCG 1992a). The Proposed Action would not involve any activities that would impact cultural resources. MSST personnel, vessels, vehicles, and supplies would be in newly constructed buildings at the Honolulu ISC. Accordingly, the USCG has omitted detailed examination of cultural and historic resources. The USCG sent a letter to the Hawaii State

- Historic Preservation Officer regarding the Proposed Action on September 3, 2004 (Appendix B). No native fishing rights were identified that might be affected by the Proposed Action. A letter was sent to the Director of Native Rights, Land, and Culture, Office of Hawaiian Affairs (OHA), requesting input on native fishing areas that might be affected. Calls have also been placed to the OHA, but not comments have been received.
- **Hazardous Materials and Hazardous Wastes.** The Proposed Action would occur at the Honolulu ISC. Routine vessel and vehicle maintenance would be performed in the MSST boat storage and dive shop facility. A local commercial contractor would be hired to remove and dispose of hazardous waste materials (e.g., used oil and engine coolant), and the MSST armory would use only nonhazardous, orange-based cleaners. The MSST would follow the USCG's procedures as described in the Hazardous Waste Management Manual (COMDTINST M16478.1B), internally known as the "Red Book." This manual is a compilation of standard operating procedures for employees handling hazardous materials and waste, asbestos, polychlorinated biphenyls, fuel tanks, lead, and biohazardous waste (USCG 1992b). Accordingly, the USCG has omitted detailed examination of hazardous materials and hazardous wastes.
 - **Coastal Zone Management Act.** The Federal Coastal Zone Management Act of 1972 requires Federal agency activities to be consistent with the state's federally approved Coastal Management Program. Under Hawaii's Coastal Zone Management Statute (Hawaii Revised Statutes, Chapter 205A, Section 3), the Hawaii Department of Business, Economic Development and Tourism (DBEDT), Office of Planning is authorized to "review federal programs, federal permits, federal licenses, and federal development proposals for consistency with the coastal zone management program." As assessed in this EA, no significant impacts on coastal resources in Honolulu, Hawaii, are anticipated as a result of the Proposed Action. As such, the Proposed Action is deemed consistent with the guidelines that are provided under Hawaii Revised Statutes, Chapter 205A, Section 2, Coastal Zone Management Program, Objectives and Policies. Additionally, the Proposed Action is consistent with Subsection 205A-2-(b)-10, as its purpose is for public safety, and it will "promote the protection, use and development of coastal and marine resources." Furthermore, in accordance with Subsection 205A-2-(c)-5(c), the Proposed Action would "direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments." Based upon the preceding information, data, and analysis, the USCG finds that the stand-up and operation of MSST Honolulu is consistent to the maximum extent practicable with the enforceable policies of the Hawaii Coastal Management Program. The USCG sent a Federal Consistency Determination to the DBEDT, Office of Planning on September 3, 2004. The DBEDT concurred with the determination that the Proposed Action is consistent with the state's Coastal Management Program in a letter dated April 15, 2005. Accordingly, the USCG has omitted further detailed examination.

3.1.2 Region of Influence

The MSST would be permanently homeported at the USCG ISC Honolulu, which supports 35 commands within the Fourteenth Coast Guard District, including more than 3,000 active duty, reserve, civilian, and auxiliary personnel, and their families, throughout Hawaii, Guam, and Japan. Within Hawaii, ISC Honolulu is home to 1,010 active duty and 196 reserve members, as well as

approximately 860 retired and auxiliary personnel, and nine USCG Cutters (Assateague, Galveston Island, Jarvis, Kiska, Kittiwake, Kukui, Rush, Walnut, and Washington) (USCG 2004b).

Prior to 1939, ISC Honolulu was a Lighthouse Service Depot responsible for repairing buoys. In 1945, the USCG absorbed the Lighthouse Service and expanded the Depot's Sand Island property into a formal USCG base. Base Sand Island continued to grow, in size and responsibility, until 1988, when it became a joint USCG Group/Base. For several years, this unit provided general operational and logistical support to the USCG, as well as industrial shipping and receiving support, search and rescue capabilities, and law enforcement throughout the Honolulu region. In 1996, Group and Base Honolulu were divided into separate commands, and Base Sand Island was placed under the Commander of Maintenance and Logistics, Command Pacific. Known today as ISC Honolulu, this unit provides a variety of support functions, including engineering support for ships and facilities, hazardous materials management, housing, readiness and training, safety and environmental health, health services, comptroller services, pay and personnel services, work-life services, and galley support. The ISC, whose FY 2002 operating budget exceeded \$112 million, continues to maintain a buoy depot and overhaul navigational aids throughout the region (USCG 2004b).

The Defender Class Boats would be launched from a public boat ramp at Keehi Lagoon, approximately 1 mile from the ISC. The ROI for the Proposed Action and the No Action Alternative is geographically defined as the Port of Honolulu region, which includes the coastal waters surrounding the main Hawaiian Islands and Guam. The MSST would spend the majority of its operating time patrolling the Port of Honolulu; however, it can be deployed temporarily in emergencies to other ports as needed.

3.1.3 Environmental Regulations, Laws, and Executive Orders

A table containing examples of regulations, laws, and EOs that might reasonably be expected to apply to the Proposed Action is included in Appendix C. It is not intended to be a complete description of the entire legal framework under which the USCG conducts its missions.

3.2 Biological Resources

3.2.1 Definition of the Resource

Biological resources include native or naturalized plants and animals, and the habitats (e.g., wetlands, forests, and grasslands) in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service

(USFWS), National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NOAA Fisheries), a state regulatory agency, or otherwise protected under Federal or state laws. Determining which species or habitats occur in an area affected by a proposed action can be accomplished through literature reviews and coordination with appropriate Federal and state regulatory agency representatives, resource managers, and other knowledgeable experts.

The USCG has a number of long-standing initiatives and programs relating to Living Marine Resource Protection, a primary mission of the USCG:

- **National Marine Sanctuary Law Enforcement Program.** Among other activities, this program provides routine surveillance of marine sanctuaries concurrently with other USCG operations and provides specific, targeted, or dedicated law enforcement, as appropriate.
- **Ocean Guardian.** This long-range fisheries law enforcement strategy supports national goals for fisheries resource management and conservation (see Appendix D).
- **Ocean Steward.** This is the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species (see Appendix D).
- **Sea Partners.** This environmental and outreach program is designed to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations (USCG 2002d).
- **COMDTINSTs.** This is the USCG's implementation and guidance document for policy and procedures.
- **Conservation Program.** This program promotes USCG involvement with other Federal and state agencies, and public and nongovernmental organizations to conserve and protect living marine resources (USCG 1996).

Protected and Sensitive Habitats

Protected habitats are biologically sensitive marine habitats that are managed by Federal, state, or local agencies. Protected habitats in the Honolulu region include National Marine Sanctuaries (NMSs), Federal Fishery Management Zones (FFMZs), National Wildlife Refuges (NWRs), National Parks (NPs), State Parks (SPs), Marine Protected Areas (MPAs), Marine Life Conservation Districts (MLCDs), coral reefs, and critical habitat. These habitats offer varying degrees of protection from agencies such as NOAA Ocean Services, NOAA Fisheries, the Department of the Interior, the USFWS, the National Park Service, the USCG, state agencies and, in some cases, local jurisdictions.

Wetlands, Floodplains, and Seagrasses

Biological resources also include wetlands. Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling,

wildlife habitat provision, unique flora and fauna niche provision, storm water attenuation and storage, sediment detention, and erosion protection. Wetlands are protected as a subset of the “waters of the United States” under the Clean Water Act (CWA). The term “waters of the United States” has a broad meaning under the CWA and incorporates deepwater aquatic habitats and special aquatic habitats (including wetlands). The USACE defines wetlands as “those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (33 CFR 328).

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands. In addition, Section 404 of the CWA also grants states with sufficient resources the right to assume these responsibilities. Section 401 of the CWA authorizes states to use their water quality standards to protect wetlands. The permit provided by the state under Section 401 is generally referred to as a 401 Water Quality Certification. The Hawaii State Department of Health, Clean Water Branch issues 401 Water Quality Certifications for the state of Hawaii.

As mentioned previously, the ISC is not within a 100-year floodplain; therefore, no further action is required under EO 11988, *Floodplain Management*.

Marine Mammals and Sea Turtles

Protection of marine protected species, such as mammals, sea turtles, or other threatened or endangered marine species, is an important USCG mission. Biotic and environmental factors, as well as human impacts, influence the distribution of marine mammals and sea turtles. Environmental factors include chemical, climate, or physical (those related to the characteristics of a location) factors. Biotic factors include the distribution and abundance of prey, competition for prey, reproduction, natural mortality, catastrophic events (e.g., die-offs), and predation. Human impacts include noise, hunting pressure, pollution, oil spills, habitat loss and degradation, shipping traffic, recreational and commercial fishing, oil and gas development and production, and seismic exploration. It is the interrelationships of environmental and biotic factors and human impacts that can affect the location and temporary distribution of prey species. This, in turn, influences diversity, abundance, and distribution of marine mammals and sea turtles.

The USCG has a long-standing role in protecting marine mammals and sea turtles. It enforces all U.S. laws protecting marine species in the EEZ, including the ESA, the Marine Mammal Protection Act (MMPA), the National Marine Sanctuaries Act, a number of maritime EOs, and Federal and international laws, as applicable. The USCG Protected Living Marine Resources Program (COMDTINST 16475.7) includes a number of policies, directions, and procedures that outline specific rules to ensure that impacts with marine mammals and sea turtles are avoided whenever possible. The USCG's Ocean Steward and Ocean Guardian initiatives and speed guidance also support these goals (USCG 2002d). Additionally, the Ocean Steward initiative protects marine mammals by regulating incidental and intentional "takes" (harassment of marine mammals from close or repeated approach by vessels). Information about the Ocean Steward, Ocean Guardian, and Protected Living Marine Resources Programs is presented in Appendix D.

The ESA of 1973 (16 United States Code [U.S.C.] 1531-1534) establishes protection and conservation of threatened and endangered species and the ecosystems upon which they depend. The ESA is administered by USFWS and NOAA Fisheries. Under the ESA, an "endangered species" is defined as any species in danger of extinction throughout all or a significant portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future. Section 7 of the ESA requires that all Federal agencies consult with USFWS or NOAA Fisheries, as applicable, before initiating any action that could affect a listed species. "Critical habitat" includes geographic areas "on which are found those physical or biological features essential to the conservation of the species and which require special management consideration or protection." Section 7 of the ESA states that any project authorized, funded, or conducted by any Federal agency should not "... jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical."

Under the MMPA of 1972 (16 U.S.C. 1361 *et seq.*), the Secretary of Commerce is responsible for the protection of all cetaceans (whales, porpoises, and dolphins) and pinnipeds (seals and sea lions) except walruses, and has delegated authority for implementing the MMPA to NOAA Fisheries. The Secretary of the Interior is responsible for walruses, polar bears, sea otters, manatees, and dugongs and has delegated the responsibility of conservation and protection of these marine mammals to USFWS. These responsibilities include providing overview and advice to regulatory agencies on all Federal actions that might affect these species.

The MMPA prohibits the “take” of marine mammals, with certain exceptions, in waters under U.S. jurisdiction and by U.S. citizens on the high seas. Under Section 3 of the MMPA, “take” of marine mammals is defined as “harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal” and “harassment” is defined as any act of pursuit, torment, or annoyance that has the potential to injure marine mammal stock in the wild; or has the potential to disturb a marine mammal or marine mammal stock in the wild by disrupting behavioral patterns, including migration, breathing, nursing, breeding, feeding, and sheltering. In cases where U.S. citizens are engaged in activities, other than fishing, that result in “unavoidable,” incidental take of marine mammals, the Secretary of Commerce can issue a “small take authorization.” The authorization can be issued, after notice and opportunity for public comment, if the Secretary of Commerce finds negligible impacts.

Fish

Under their Living Marine Resource Protection mission, the USCG undertakes activities, such as enforcing domestic fisheries laws, and ensuring the development of practical enforcement plans, to protect, conserve, and manage these resources. Examples of laws pertaining to fish and fisheries management that the USCG enforces are

- Atlantic Coastal Fisheries Cooperative Management Act (16 U.S.C. 2431 et seq.)
- Atlantic Salmon Convention Act (16 U.S.C. 971 et seq.)
- Lacey Act Amendments of 1981 (16 U.S.C. 1531 et seq.)
- Magnuson-Stevens Fisheries Conservation and Management Act (MSA) (16 U.S.C. 1801, et seq.)
- Northwest Atlantic Fisheries Compliance Act of 1995 (16 U.S.C. 5001 et seq.)
- Tuna Conventions Act (16 U.S.C. 973 et seq.)

Additionally, the Ocean Guardian initiative includes the Fisheries Enforcement Strategic Plan to support national goals for fisheries resource management and conservation.

Coastal and Other Birds

In enforcing the ESA, the USCG also protects threatened and endangered bird species. The USCG must also comply with the Migratory Bird Treaty Act and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

3.2.2 Affected Environment

The ROI for the Proposed Action and the No Action Alternative includes the Port of Honolulu and the coastal waters surrounding the main Hawaiian Islands and Guam (Figure 1-2).

Flora

Vegetation in the Sand Island area is influenced by generally low rainfall, saline soil, the man-made origin of the area, and the high degree of development and human activity. Consequently, only a small variety of plant life, which is characterized as drought resistant, highly salt tolerant, and hardy in dry areas, can be found. No Federal- or state-listed or candidate threatened or endangered plant species are found on any area of Sand Island (USCG 1992a).

Protected and Sensitive Habitats

The protected habitats in the coastal area of the ROI include Hawaii Volcanoes NP, Haleakala NP, the Hawaii Humpback Whale NMS, Northwest Hawaiian Islands (NWHI) MPA, Hawaiian Islands NWR, the Oahu NWR Complex (comprised of the James Campbell, Oahu Forest, and Pearl Harbor NWRs), Guam NWR, the Western Pacific FFMZ, and numerous SPs and MLCDs.

Critical habitat is designated under the ESA as “a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management or protection.” Critical habitat can include an area that is not currently occupied by a species, but is needed for the recovery of that species. In 1988, critical habitat was designated for Hawaiian Monk seals at various locations around the Hawaiian Islands. The designated areas include all beaches to a depth of 20 fathoms (37 meters) around breeding islands and at Maro Reef. Additionally, in 1991, a Protected Species Zone was established to enhance Hawaiian Monk seal habitat. This zone prohibits long-line fishing within 50 nautical miles of the Northwest Hawaiian Islands and their surrounding corridors (USFWS 2004).

Wetlands and Seagrasses

Hawaii once contained an estimated 59,000 acres of wetlands; but, over the past 200 years, more than 12 percent of these original wetlands have been lost. Hawaii’s wetlands provide ecological benefits in their ability to protect and maintain water quality in nearshore habitats, particularly coral reefs. Wetlands protect reef areas from sediment, turbidity, and freshwater intrusion during storms. In turn, these protected reef areas provide important habitat for recreational and commercial fisheries, as well as the ocean recreation industry. Hawaii’s wetlands also provide food and prey for its reef and open coastal fisheries (NOAA 2004a).

According to USEPA's National Coastal Condition Report, 56 percent of Hawaii's estuarine areas are impaired by some form of pollution or habitat degradation. Although only 1 percent of Hawaii's recreational and commercial fisheries are known to be estuarine-dependent, several of these species are vital to Hawaii's economy, including the mullet, milkfish, shrimp, and nehu, a tropical anchovy used as live bait in the skipjack tuna fishery (NOAA 2004a). Recreational fishing had an economic impact of more than \$238 million in 1996 (Maharaj and Carpenter 1997), and commercial fishing revenues are growing, with commercial landings increasing from \$20 million in 1980 to more than \$69 million in 1993 (NOAA 1996). Therefore, even though it is difficult to quantify exactly how estuarine degradation and loss are affecting Hawaiian fisheries, wetland habitat protection is vital to Hawaii's economic success.

Seagrass ecosystems are among the most productive benthic habitats in estuarine and nearshore waters. Seagrass meadows provide food and important spawning, foraging and refuge habitat for numerous species of recreationally and commercially important fish. They also allow for the attachment of epiphytes and benthic organisms, and they support threatened and endangered species such as sea turtles (Handley 1995). Hawaii has only one species of seagrass, *Halophila hawaiiiana*, but it is neither common nor a major food source (Turtle Trax 2004).

Marine Mammals

A letter from NOAA Fisheries, dated September 17, 2004, lists 24 marine mammals known to occur in the ROI and are protected under the MMPA. These species are listed in Table 3-1. Five of these are also listed as endangered under the ESA and include the Hawaiian monk seal (*Monachus schauinslandi*), humpback whale (*Megaptera novaeangliae*), sperm whale (*Physeter macrocephalus*), blue whale (*Balaenoptera musculus*), and fin whale (*Balaenoptera physalus*). The endangered species of marine mammals are described further below.

Hawaiian Monk Seal. The Hawaiian monk seal was listed as endangered under the ESA in 1976. The majority of Hawaiian monk seals live in the remote, northwestern islands of the Hawaiian archipelago, specifically Kure Atoll, Midway Atoll, Pearl and Hermes Reef, Lisianski Island, Laysan Island, French Frigate Shoals, Gardner Pinnacles, Necker Island, and Nihoa Island. These coral structures provide monk seals with food supplies including spiny lobsters, octopi, eels, and various reef fishes. Monk seals spend most of their time in the water, but rest or "haul-out" on warm, sandy beaches and occasionally use beach vegetation as shelter from wind and rain. Human activity on beaches can cause monk seals to abandon these haul-out sites and is particularly disruptive to mother-pup pairs (USFWS 2004).

Table 3-1. Marine Mammals Known to Inhabit the ROI

Common Name	Species	Federal Status
Hawaiian monk seal	<i>Monachus schauinslandi</i>	E*
Humpback whale	<i>Megaptera novaeangliae</i>	E*
Sperm whale	<i>Physeter macrocephalus</i>	E*
Blue whale	<i>Balaenoptera musculus</i>	E*
Fin whale	<i>Balaenoptera physalus</i>	E*
Northern elephant seal	<i>Mirounga angustirostris</i>	*
Bryde's whale	<i>Balaenoptera edeni</i>	*
Common dolphin	<i>Delphinus delphis</i>	*
Rough-toothed dolphin	<i>Steno bredanensis</i>	*
Risso's dolphin	<i>Grampus griseus</i>	*
Bottlenose dolphin	<i>Tursiops truncatus</i>	*
Pantropical spotted dolphin	<i>Stenella attenuata</i>	*
Spinner dolphin	<i>Stenella longirostris</i>	*
Striped dolphin	<i>Stenella coeruleoalba</i>	*
Fraser's dolphin	<i>Lagenodelphis hosei</i>	*
Melon-headed whale	<i>Peponocephala electra</i>	*
Pygmy killer whale	<i>Feresa attenuate</i>	*
False killer whale	<i>Pseudorca crassidens</i>	*
Killer whale	<i>Orcinus orca</i>	*
Short-finned pilot whale	<i>Globicephala macrorhynchus</i>	*
Blainville's beaked whale	<i>Mesoplodon denisrostris</i>	*
Cuvier's beaked whale	<i>Ziphius cavirostris</i>	*
Pygmy sperm whale	<i>Kogia breviceps</i>	*
Dwarf sperm whale	<i>Kogia sima</i>	*

Source: NOAA Fisheries 2004

Notes: E- Endangered under ESA, * - Protected under the MMPA

Hawaiian monk seal critical habitat was designated in 1988. Within the ROI, Hawaiian monk seal critical habitat is defined as all beach areas, sand spits, islets (including all beach crest vegetation to its deepest extent inland), lagoon waters, inner reef waters, and ocean waters out to a depth of 20 fathoms around Kure Atoll, Midway Islands (except Sand Island and its harbor), Pearl and Hermes Reefs, Lisianski Island, Laysan Island, Maro Reef, Gardner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island (53 FR 18998).

Humpback Whale. The humpback whale was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8498). Humpback whales occur in all oceans. Humpback whales

from the Central Pacific stock migrate to the Hawaiian Islands to mate and give birth from November through May (NOAA 2004b). These whales migrate to the cool, coastal waters of Western United States, Canada, and the Russian Far East to feed on zooplankton and small, schooling fish. The Central North Pacific stock of humpback whales is estimated to be comprised of approximately 2,000 to 5,000 individuals.

While no critical habitat has been designated for humpback whales off the Hawaiian Islands, a Hawaiian Islands Humpback Whale NMS was established on November 4, 1992. The location of the Hawaiian Islands Humpback Whale NMS is within the 100-fathom isobath in the four-island area of Maui; Penguin Bank, and off the north shore of Kauai, the north and south shore of Oahu, and Kohala coastline off the Big Island. The purpose of the NMS is to protect humpback whales and their habitat within the sanctuary, to interpret for and educate the public about the relationship of humpback whales and the Hawaiian Islands marine environment; to manage human uses of the sanctuary consistent with the Hawaiian Islands National Marine Sanctuary Act and the National Marine Sanctuary Act; to provide identification of marine resources and ecosystems of national significance for possible inclusion in the sanctuary.

Sperm Whale. The sperm whale was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491). Sperm whales occur in all oceans. Sperm whales have been sighted around several of the Northwestern Hawaiian Islands and off the main islands of Hawaii. The sounds of sperm whales have been recorded throughout the year off Oahu. Sightings of sperm whales were made during May through July in the 1980s around Guam and in recent years, strandings have been reported on Guam. Historical observations of sperm whales occurred in all months except February and March around Samoa (NMFS 2001).

Blue Whale. The blue whale was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8498). Blue whales occur in all oceans. No sightings or strandings of blue whales have been reported in Hawaii, but acoustic recording made off Oahu and Midway Islands indicate that blue whales occur in the EEZ somewhere near Hawaii. Little is known about blue whale stock structure in the North Pacific or abundance near Hawaii (NMFS 2001).

Fin Whale. The fin whale was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8498). Fin whales occur in all oceans. There have only been a few sightings of fin whales in Hawaii. It is generally believed that fin whales make poleward feeding migrations in the summer and move towards the equator in the winter. Little is known about the population structure or abundance of finback whales in the North Pacific (NMFS 2001).

Sei Whale. The sei whale was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8498). Sei whales have a worldwide distribution but are found mainly in cold temperate to subpolar latitudes rather than in the tropics or near the poles. They are distributed far out at sea and do not appear to be associated with coastal features. The International Whaling Commission recognizes one stock of sei whales in the North Pacific, although evidence suggests there may be more than one. Little is known about the abundance of sei whales in the North Pacific. Sei whales are rare in the waters near the Hawaiian Islands. Two sei whales were tagged in the vicinity of Northern Mariana Islands (NMFS 2001).

Sea Turtles

A letter from NOAA Fisheries, dated September 17, 2004, lists five species of sea turtles inhabit the waters surrounding the ROI and are listed in Table 3-2. The leatherback (*Dermochelys coriacea*) and hawksbill sea turtles (*Eretmochelys imbricata*) are listed as endangered, while the green (*Chelonia mydas*), olive ridley (*Lepidochelys olivacea*), and loggerhead sea turtles (*Caretta caretta*) are listed as threatened.

Green Sea Turtles. The green sea turtle was listed as threatened under the ESA on July 28, 1978 (43 FR 32800-32811). Green sea turtles are found throughout the world's oceans and have only two known predators, tiger sharks and man. About 450 to 475 green sea turtles nest annually on Hawaiian beaches, making them the most abundant sea turtle in the region. The most common nesting beaches are on the French Frigate Shoals (within the Hawaiian Islands NWR), where approximately 90 percent of the Hawaiian population of green turtles mate and lay their eggs. Mating females come ashore as many as five times every 15 nights to make nests and lay eggs (NOAA 2004b). In 1992, approximately 750 mature females were associated with the French Frigate Shoals nesting area (Turtle Trax 2004). No critical habitat is designated for green sea turtles within the ROI.

Table 3-2. Sea Turtles Known to Inhabit the ROI

Common Name	Species	Federal Status
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E
Hawksbill sea turtle	<i>Eretmochelys imbricate</i>	E
Green sea turtle	<i>Chelonia mydas</i>	T
Olive ridley sea turtle	<i>Lepidochelys olivacea</i>	T
Loggerhead sea turtle	<i>Caretta caretta</i>	T

Source: NOAA Fisheries 2004.

Notes: E – Endangered

T – Threatened

Leatherback Sea Turtle. The leatherback sea turtle was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8495). Leatherback sea turtles are commonly sighted foraging in the waters surrounding the Hawaiian Islands. The leatherback sea turtle is primarily a pelagic species. It is distributed in temperate and tropical waters worldwide (NMFS and USFWS 1992, USFWS 2002). Of all sea turtles, the leatherback is the largest, deepest diving, most migratory, widest ranging, and most pelagic sea turtle (USFWS 2002). Leatherbacks undergo extensive migrations from feeding grounds to nesting beaches. Once they nest, they move offshore and use both coastal and pelagic waters. Nesting grounds are found circumglobally, but nesting sites in the Pacific are rapidly decreasing (NMFS 2002). Genetic analysis indicates that leatherbacks foraging in the waters surrounding Hawaii are from both eastern and western Pacific breeding grounds (NMFS 2001). No critical habitat is designated for leatherback sea turtles within the ROI.

Loggerhead Sea Turtle. The loggerhead turtle was listed as threatened throughout its range, under the ESA, on July 28, 1978 (43 FR 32800-32811). The loggerhead sea turtle is found throughout the oceans, in temperate and subtropical waters and on continental shelves, bays, estuaries, and lagoons. There are no records of nesting loggerhead sea turtles in the Hawaiian Islands, Guam, Palau, the Northern Marianas Islands, Marshall Islands, the Federated States of Micronesia, or American Samoa. The species is considered rare or extralimital in this area. Pacific populations of loggerhead sea turtles found in U.S. jurisdictions are thought to originate from Japanese nesting areas (NMFS 2001).

Olive Ridley Sea Turtle. The olive ridley sea turtle was listed as threatened in the Pacific (except for the Mexican nesting populations which was listed as endangered), under the ESA, on July 28, 1978 (43 FR 32800-32811). Olive ridley sea turtles generally have a tropical range, but some venture as far north as Gulf of Alaska. A single olive ridley was reported nesting on the island of Maui, Hawaii, but the eggs did not hatch and it is thought to be an anomaly.

Hawksbill Sea Turtle. The hawksbill sea turtle was listed as endangered throughout its range, under the ESA, on June 2, 1970 (35 FR 8491-8498). The hawksbill sea turtle is found throughout the tropics. Within the state of Hawaii, hawksbill sea turtles are known to nest on the islands of Maui, Molokai, and Hawaii. A total of 98 nests and 18 tagged sea turtles were documented between 1989 and 1993 in Hawaii. Peak nesting season is from late July through September.

Fish

The Western Pacific Fisheries Management Council (WPFMC) and NOAA Fisheries Pacific Island Regional Office manage fisheries in the Hawaiian Islands and Guam. Commercial fishery landings in

this region totaled 39 million pounds and were valued at \$67 million in 2002 (O'Bannon 2003). No threatened or endangered species of fish occur in the ROI; federally managed finfish and shellfish (crustaceans and mollusks), and coral species that have EFH in the ROI are presented in Table 3-3 (DeMello 2004; NOAA Fisheries 1999a, b; WPRFMC 2004).

Coastal areas are essential breeding, nursery, and feeding areas for many marine fish and shellfish. Pursuant to the MSA, Federal agencies must consult with fishery managers concerning actions (including the issuance of permits for private activities) that might adversely impact EFH.

Coastal and Other Birds

Nine threatened and endangered coastal and marine bird species are found in the ROI, including the Guam broadbill (*Myiagra freycineti*), Hawaiian coot (*Fulica Americana alai*), Hawaiian duck (*Anas wyvilliana*), laysan duck (*Anas laysanensis*), laysan finch (*Telespyza cantans*), nihoa finch (*Telespyza ultima*), Hawaiian dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*), Newell's shearwater (*Puffinus newelli*), and Hawaiian stilt (*Himantopus mexicanus knudseni*). There is no critical habitat has been designated for bird species in this region. However, a variety of coastal, pelagic, and wetland birds inhabit the Island of Oahu including the following:

- Laysan albatross (*Phoebastira immutabilis*)
- Sooty tern (*Sterna fuscata*)
- Black-footed albatross (*Phoebastria nigripes*)
- White tern (*Gygis alba*)
- Masked booby (*Sula dactylatra*)
- Brown noddy (*Anous stolidus*)
- Brown booby (*Sula leucogaster*)
- Black noddy (*Anous minutus melanogenys*)
- Red-footed booby (*Sula sula*)
- Bulwers petrel (*Bulweria bulwerri*)
- Cattle egret (*Bubulcus ibis*)
- Wedgetailed shearwater (*Puffinus pacificus*)
- Black-crowned night-heron (*Nycticorax nycticorax*)
- Christmas shearwater (*Puffinus nativitatus*)
- Hawaiian moorhen (*Gallinula chloropus sandvicensis*)
- White-tailed tropicbird (*Phaethon lepturus*)
- Grey-backed tern (*Sterna lunata*)
- Red-tailed tropicbird (*Phaethon rubicauda*)

Table 3-3. Fish and Invertebrate Species with EFH in the ROI

Common Name	Species	Protected Life Stage			
		Eggs	Larvae	Juveniles	Adults
Bottomfish Complex					
Uku	<i>Aprion virescens</i>	X	X	X	X
Thicklip trevally	<i>Pseudocaranx dentex</i>	X	X	X	X
Lunartail grouper	<i>Variola louti</i>	X	X	X	X
Blacktip grouper	<i>Epinephelus fasciatus</i>	X	X	X	X
Ambros emperor	<i>Lethrinus amboinensis</i>	X	X	X	X
Redgill emperor	<i>Lethrinus rubrioperculatus</i>	X	X	X	X
Giant trevally	<i>Caranx ignobilis</i>	X	X	X	X
Black trevally	<i>Caranx lugubris</i>	X	X	X	X
Amberjack	<i>Seriola dumerili</i>	X	X	X	X
Taape	<i>Lutjanus kasmira</i>	X	X	X	X
Ehu	<i>Etilis carbunculus</i>	X	X	X	X
Onaga	<i>Etilis coruscans</i>	X	X	X	X
Opakapaka	<i>Pristipomoides filamentosus</i>	X	X	X	X
Yellowtail kalekale	<i>Pristipomoides auricilla</i>	X	X	X	X
Yelloweye opakapaka	<i>Pristipomoides flavipinnis</i>	X	X	X	X
Kalekale	<i>Pristipomoides sieboldii</i>	X	X	X	X
Gindai	<i>Pristipomoides zonatus</i>	X	X	X	X
Hapupuu	<i>Epinephelus quernus</i>	X	X	X	X
Lehi	<i>Aphareus rutilans</i>	X	X	X	X
Seamount Groundfish Complex					
Armorhead	<i>Pseudopentaceros richardsoni</i>	X	X	X	X
Ratfish/Butterfish	<i>Hyperoglyphe japonica</i>	X	X	X	X
Alfonsin	<i>Beryx splendens</i>	X	X	X	X
Pelagic Complex					
Striped marlin	<i>Tetrapurus audax</i>	X	X	X	X
Bluefin tuna	<i>Thunnus thynnus</i>	X	X	X	X
Swordfish	<i>Xiphias gladius</i>	X	X	X	X
Albacore	<i>Thussus alalunga</i>	X	X	X	X
Mackeral	<i>Scomber spp.</i>	X	X	X	X
Bigeye	<i>Thunnus obesus</i>	X	X	X	X
Pomfret	<i>Family Bramidae</i>	X	X	X	X
Yellowfin tuna	<i>Thunnus albacares</i>	X	X	X	X
Kawakawa	<i>Euthynnus affinis</i>	X	X	X	X
Skipjack	<i>Katsuwonus pelamis</i>	X	X	X	X
Frigate tuna	<i>Auxis thazard</i>	X	X	X	X
Bullet tuna	<i>Auxis rochei</i>	X	X	X	X
Blue marlin	<i>Makaira nigricans</i>	X	X	X	X

Table 3-3. Fish and Invertebrate Species with EFH in the ROI (continued)

Common Name	Species	Protected Life Stage			
		Eggs	Larvae	Juveniles	Adults
Pelagic Complex (continued)					
Slender tunas	<i>Allothunnus fallai</i>	X	X	X	X
Black marlin	<i>Makaira indica</i>	X	X	X	X
Dogtooth tuna	<i>Gymnosarda unicolor</i>	X	X	X	X
Spearfish	<i>Tetrapturus spp.</i>	X	X	X	X
Sailfish	<i>Istiophorus platypterus</i>	X	X	X	X
Mahimahi	<i>Coryphaena hippurus, C. equiselas</i>	X	X	X	X
Ono	<i>Acanthocybium solandri</i>	X	X	X	X
Opah	<i>Lampris spp.</i>	X	X	X	X
Requiem sharks	Family Carcharinidae	X	X	X	X
Thresher sharks	Family Alopiidae	X	X	X	X
Mackerel sharks	Family Lamnidae	X	X	X	X
Hammerhead sharks	Family Sphyrnidae	X	X	X	X
Crustaceans					
Hawaiian spiny lobster	<i>Panulirus marginatus</i>	X	X	X	X
Spiny lobster	<i>Panulirus penicillatus</i>	X	X	X	X
Slipper lobster	Family Scyllaridae	X	X	X	X
Kona crab	<i>Ranina ranina</i>	X	X	X	X
Precious Corals					
Pink coral	<i>Corallium secundum, C. laauense</i>	EFH for Precious Corals is confined to six known precious coral beds off Keahole Point, Makapuu, Kaena Point, Wespac bed, Brooks Bank, and 180 Fathom Bank.			
Red coral	<i>Corallium regale</i>				
Midway deepsea coral	<i>Corallium spp.</i>				
Gold coral	<i>Gerardia spp., Callogorgia gilberti, Narella spp., Calyptrophora spp.</i>	EFH has also been designated for three beds known for black corals in the Main Hawaiian Islands between Milolii and South Point on the Big Island, the Auau Channel, and the southern border of Kauai.			
Bamboo coral	<i>Lepidisis olapa, Acanella spp.</i>				
Black coral	<i>Antipathes dichotoma, A. grandis, A. ulex</i>				
Coral Reef Ecosystem					
The Coral Reef Ecosystem Management Unit Species include virtually all the organisms that inhabit the coral reef ecosystem, including bony fishes, rays, invertebrates, corals, algae, and other sessile benthos. ¹		EFH for the Coral Reef Ecosystem Management Unit Species includes the water column and all benthic substrate to a depth of 50 fathoms from the shoreline to the outer limit of the EEZ.			

Source: WPRFMC 2004

Note: ¹ For a complete listing of organisms in the Coral Reef Ecosystem, go to <<http://www.wpcouncil.org/coralreef.htm>>.

3.3 Air Quality and Climate

3.3.1 Definition of the Resource

The air quality in a given region is measured by the concentration of various pollutants in the atmosphere. The Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) have been established by USEPA for six criteria pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than 10 microns (PM₁₀), and lead (Pb). The measurements of these “criteria pollutants” are expressed in units of parts per million (ppm) or in units of micrograms per cubic meter (µg/m³). The CAA directed USEPA to develop, implement, and enforce strong environmental regulations that would ensure cleaner and healthier ambient air quality. To protect public health and welfare, USEPA developed numerical concentration-based primary and secondary standards for these criteria pollutants. NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety to protect public health and welfare. O₃ is not emitted directly from stationary, mobile, or area pollution sources. Rather, it is a product of photochemically reactive compounds such as NO_x and VOC. These compounds are inventoried and quantified as precursors of O₃. Air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the air basin, and the prevailing meteorological conditions.

Federal regulations (40 CFR Part 81) have defined Air Quality Control Regions (AQCRs), or airsheds, for the entire United States. AQCRs are based on population and topographic criteria for groups of counties within a state, or counties from multiple states that share a common geographical or pollutant concentration characteristic.

The CAA Section 176 I (1) prohibits Federal agencies from undertaking projects that do not conform to a USEPA-approved State Implementation Plan (SIP) in nonattainment areas. In 1993, USEPA developed the General Conformity Rule, which specifies how Federal agencies must determine CAA conformity for sources of nonattainment pollutants in designated nonattainment and maintenance areas. A maintenance area is one that has met Federal air quality standards, thus removing it from nonattainment status. This rule and all subsequent amendments can be found in 40 CFR 51 Subpart W and 40 CFR 93 Subpart B. Through the Conformity Determination process specified in the final rule, any Federal agency must analyze increases in pollutant emissions directly or indirectly attributable to a proposed action. In addition, they might need to complete a formal evaluation that might include modeling for NAAQS impacts, obtaining a commitment from the state regulatory agency to modify the SIP to account for emissions from a proposed action, or providing for mitigation

for any significant increases in nonattainment pollutants. SIPs are the regulations and other materials for meeting clean air standards and associated CAA requirements. The Proposed Action at the Honolulu MSST occurs within Honolulu County, which has been designated as an attainment area for all pollutants. Therefore, the General Conformity Rule does not apply. A conformity analysis is not required.

3.3.2 Affected Environment

Air Quality

The Hawaii State Department of Health has primary jurisdiction over air quality in the state of Hawaii. The Proposed Action is in the State of Hawaii AQCR. The air quality in this region is designated as in attainment for all criteria pollutants. Table 3-4 presents the primary and secondary NAAQS. Table 3-5 presents the current air emissions inventory data for the State of Hawaii AQCR.

Table 3-4. National Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
CO			
8-hour Average	9 ppm	(10 mg/m ³) ^a	Primary and Secondary
1-hour Average	35 ppm	(40 mg/m ³)	Primary
NO ₂			
Annual Arithmetic Mean	0.053 ppm	(100 µg/m ³)	Primary and Secondary
O ₃			
1-hour Average	0.12 ppm	(235 µg/m ³) ^b	Primary and Secondary
8-hour Average	0.08 ppm	(157 µg/m ³) ^b	Primary and Secondary
Pb			
Quarterly Average		1.5 µg/m ³	Primary and Secondary
PM ₁₀			
Annual Arithmetic Mean		50 µg/m ³	Primary and Secondary
24-hour Average		150 µg/m ³	Primary and Secondary
SO ₂			
Annual Arithmetic Mean	0.03 ppm	(80 µg/m ³) ^b	Primary
24-hour Average	0.14 ppm	(365 µg/m ³) ^b	Primary
3-hour Average	0.50 ppm	(1,300 µg/m ³) ^b	Secondary

Notes:

^a Parenthetical values are an approximately equivalent concentration.

^b In July 1997, the 8-hour ozone standard was promulgated and the 1-hour ozone standard was remanded for all areas, excepting areas that were designated nonattainment with the 1-hour standard when the ozone 8-hour standard was adopted. In July 2000, the ozone 1-hour standard was reinstated as a result of the Federal lawsuits that were preventing the implementation of the new 8-hour ozone standard. As of December 2001, USEPA estimated that the revised 8-hour ozone standard rules would be promulgated in 2003–2004. In the interim, no areas can be deemed to be definitively nonattainment with the new 8-hour standard.

Table 3-5. Current AQCR Annual Emissions Inventory Data for State of Hawaii AQCR

	NO_x (tpy)	VOC (tpy)	CO (tpy)	SO₂ (tpy)	PM₁₀ (tpy)
Area Sources	41,372	32,161	326,021	3,128	34,499
Point Sources	31,613	4,518	7,619	37,865	5,714
Total Emissions Inventory	72,975	36,679	333,640	40,213	40,993

Source: USEPA 1999

Note: tpy - tons per year

Climate

The State of Hawaii AQCR is in a tropical climate and experiences only two seasons: a 5-month summer (May through September) and a 7-month winter (October through April). Precipitation varies considerably from one part of the state to another. The average annual rainfall is less than 20 inches in some areas and exceeds 300 inches in others, with a statewide average of roughly 70 inches per year. Temperature variations across the state are not as extreme, but do exist, mainly as a result of variation in elevations. The average yearly high temperature in Honolulu is about 78 degrees Fahrenheit (°F) and the average low is about 72 °F. Table 3-6 presents the monthly temperature and precipitation data for the state of Hawaii.

Table 3-6. Climate Summary for State of Hawaii

Month	Average Temperature (°F)	Average Precipitation (Inches)
January	68.2	6.97
February	68.1	6.38
March	68.7	7.10
April	69.8	6.53
May	71.2	4.94
June	72.8	3.37
July	73.7	4.72
August	74.4	4.99
September	74.3	3.58
October	73.4	5.06
November	71.5	7.14
December	69.3	7.39

Source: WRCC 2004

Note: Statewide temperature and precipitation data obtained from averaging location specific data.

3.4 Noise

3.4.1 Definition of the Resource

Webster's dictionary defines noise as "sound or a sound that is loud, disagreeable, or unwanted." However, the definition of noise is highly subjective. To some people, the roar of an engine is satisfying or thrilling; to others, it is an annoyance. Loud music might be enjoyable, depending on the listener and the circumstances. While no absolute standards define the threshold of "significant adverse impact," there are common precepts about what constitutes adverse noise in certain settings, based on empirical studies. Noise is "adverse" in the degree to which it interferes with activities (such as speech, sleep, and listening to the radio and television) and the degree to which human health might be impaired. Noise can also cause "adverse impacts" on marine mammals, depending on the type of noise and duration. Noise can result in stressful situations that disrupt sleep, reproduction, feeding habits, and communication in marine mammals.

This section defines noise standards and methodology, the properties of noise in air and water, and describes the existing noise in the ROI (ambient noise level). To understand the impact of noise on humans and marine animals it is necessary to understand the properties of noise in air and water and the existing ambient noise levels in the ROI.

A primary component of noise is wave amplitude or loudness, which is typically measured in decibels (dBs). A dB is the ratio between a measured pressure (with sound) and a reference pressure (without sound). It is a logarithmic unit that accounts for large variations in amplitude; therefore, relatively small changes in dB ratings correspond to significant changes in sound. The ambient sound level of a region is defined by the total noise generated, including sounds from both natural and artificial sources. The magnitude and frequency of environmental noise might vary considerably over the course of the day and throughout the week, due in part to changing weather conditions.

Airborne Noise

To evaluate the total community noise environment (above-water noise), two measurements are used by some Federal agencies to relate the time-varying quality of environmental noise to its known effect on people: the 24-hour equivalent sound level (Leq(24)) and the day-night average sound level (DNL). The Leq(24) is the level of steady sound with the same total (equivalent) energy as the time-varying sound of interest, averaged over a 24-hour period. DNL is the average acoustical energy during a 24-hour period with a 10-dB penalty added to nighttime levels (i.e., hours between 10 p.m. and 7 a.m.) to account for people's greater sensitivity to sound during nighttime hours. When

measuring sound to determine its effects on the human population, A-weighted sound levels (dBA) are typically used to account for the response of the human ear. A-weighted sound levels represent adjusted sound levels. The adjustments are made according to the frequency content of the sound. Another sound scale is the C-weighted scale (dBC). In contrast to the A-weighted scale, the C-weighted scale provides no adjustment to the noise signal over most of the audible frequency range. The C-weighted scale is generally used to measure impulsive noise such as airblasts from explosions, sonic booms, and gunfire.

Waterborne Noise

Waterborne (underwater) sound measurements are different from airborne sound measurements. Because of the differences in reference standards, noise levels cited for air do not equal underwater levels. The reference pressure used for underwater noise measurements is 1 micro-Pascal (μPa) at 1 meter (1 $\mu\text{Pa-m}$), which is lower than that used for airborne sound measurements. In addition, underwater noise measurements typically do not have any frequency weighting applied (i.e., A-weighted or C-weighted), while airborne noise is often measured using one of several frequency weighting scales. In many cases, underwater noise levels are reported only for limited frequency bands, while airborne noise is usually reported as an integrated value over a very wide range of frequencies. To compare noise levels in water to noise levels in air, one must subtract 61.5 dB from the noise level referenced in water to account for the difference in reference pressure (USN undated).

Because the mechanical properties of water differ from those of air, sound travels faster through water (1,500 meters per second) than air (about 340 meters per second) (USCG and MARAD 2003). Temperature also affects the speed of sound, which travels faster in warm water than in cold water. Since the wavelength of a sound equals the speed of sound divided by the frequency of the wave (measured in Hertz [Hz]), lower frequency sounds have longer wavelengths than higher frequency sounds. For example, a 20-Hz sound wave is 75 meters long in the water, but only 17 meters long in the air (USCG and MARAD 2003). In sea water, the rate at which sound is absorbed is proportional to the square of sound frequency; therefore, high frequency sounds are absorbed quickly and do not travel as far through the water as low frequency sounds.

Regulatory Framework for Noise and Standard Operating Procedures

USCG NEPA Implementing Procedures (COMDTINST M16475.1-D) require a discussion of the existing conditions in the surrounding communities, including noise regulations. USEPA, DOD, and

other Federal agencies having nonoccupational noise regulations use the DNL as their principal noise descriptor for community assessments (Cowan 1994).

The USCG Safety and Environmental Health Manual (COMDTINST M5100.47) establishes requirements for noise, which include compliance with local noise ordinances and the identification and assessment of hazardous noise sources. USCG defines a hazardous noise as continuous sound levels exceeding 84 dBA or impact noises exceeding 140 dBA. Noise produced by USCG watercraft or by other USCG facility activities should comply with USCG, state, and local noise guidelines. Using the Society of Automotive Engineers J34 method, USCG recommends 86 dBA as the maximum noise level that watercraft may generate while operating at full speed at a distance of 50 feet from a receiver (PWIA 2002).

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Federal Noise Control Act of 1972 (42 U.S.C. 4901, 4918). According to the USCG's Reference Guide to State Boating Laws, 6th edition, 2000, the state of Hawaii has neither operational noise regulations for vessels, nor a vessel-muffling alteration law. USEPA has determined 75 dB at 50 feet as an acceptable noise level to protect public health and welfare (PWIA 2002). For analysis purposes of this EA, the USEPA standard will be used.

Human Response to Noise

Human response to noise varies according to the type and characteristics of the noise, the distance between the source and the receptor, receptor sensitivity, and time of day. Human hearing varies in sensitivity for different sound frequencies. The ear is most sensitive to sound frequencies between 800 and 8,000 Hz and is least sensitive to sound frequencies below 400 Hz or above 12,500 Hz. Several different frequency-weighting metrics have been developed using different dB adjustment values. The most commonly used decibel-weighting schemes are the A-weighted and C-weighted scales, as described above.

Most people are exposed to sound levels of DNL 50 to 55 dB or higher on a daily basis. Studies specifically conducted to determine noise impacts on various human activities show that about 90 percent of the population is not significantly bothered by outdoor sound levels below DNL 65 dB (USDOT 1980). Studies of community annoyance in response to numerous types of environmental noise show that DNL correlates well with impact assessments and that there is a consistent relationship between DNL and the level of annoyance. The methodology employing DNL and

annoyance level has been successfully used throughout the United States in a variety of settings, ranging from urban to rural.

Marine Animals' Response to Noise

Increasing attention is being paid to the impacts of anthropogenic (human-generated) noise sources on marine animals, especially those associated with the military, as these sources tend to be much louder and can be widespread (ONR 2000, Richardson et al. 1995). Both above-water (e.g., helicopters) and underwater (e.g., vessels) noise is recognized as a disturbance to marine animals. Information on species response to noise is presented in Section 4.2.2 of this EA.

3.4.2 Affected Environment

Airborne Noise

The City of Honolulu regulates noise in its Revised Ordinances; however, the city does not currently regulate vessel noise. Airborne ambient sound levels vary based upon the setting in which they are measured. For example, in a wilderness setting, ambient sound levels range from DNL 20 to 30 dB; in residential areas, they range between DNL 30 to 50 dB; and in urban residential areas, they range between DNL 60 to 70 dB (FICON 1992). When sound levels are DNL 55 dB or less in outdoor areas, where the absence of noise is important for functional land use, there is no reason to suspect that the general population would be at risk from any of the identified effects of noise (i.e., activity interference or annoyance) (USEPA 1978). Ambient airborne sound levels are not available for the ROI.

Other sources of noise on Sand Island include overflights of aircraft within the 70 DNL noise contour of Honolulu International Airport. The airport is approximately 2 miles west of the ISC (USCG 1992a).

Waterborne Noise

Anthropogenic noise sources in the ROI include shipping, recreational boating, dredging, shoreline construction, urban and industrial development, helicopters, and sonar use. Noise generated from these activities can originate in water or air and can be stationary or transient. The intensity and frequency of these noise emissions vary significantly, both between and among industry sources. In general, the frequencies of anthropogenic sounds are below 1 kilo-Hertz (kHz); however, shipping is a major contribution to underwater noise and ranges in frequency from 0.005 to 0.5 kHz (NRC 2003). Sound pressure levels for various types of ships are presented in Table 3-7.

Table 3-7. Underwater Sound Pressure Levels for Various Vessels

Vessel (length) and Description	Frequency	Source Level (dB re 1μPa-meter)
Outboard drive, 23 feet (2 engines, 80 horsepower each)	630, 1/3 octave	156
Twin Diesel, 112 feet	630, 1/3 octave	159
Small Supply Ships, 180 to 279 feet	1000, 1/3 octave	125–135 (at 50 meters)
Freighter, 443 feet	41, 1/3 octave	172

Source: Richardson et al. 1995

Note: USCG cutters range from 110 to 387 feet. These underwater sound pressure levels cannot be directly compared to airborne decibel levels.

Due to the relatively large number of cargo vessels that visit the area each year, commercial shipping is a prominent source of waterborne noise in the ROI. According to the USACE, the Port of Honolulu accommodated about 6,400 cargo vessel trips in 2002 (USACE 2002). Recreational boating is probably a large contributor, as well, given that more than 15,000 recreational boats are registered in the state of Hawaii.

3.5 Public Safety

3.5.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of the safety of the MTS. Major members of the U.S. maritime transportation system include Federal agencies, commercial groups, state and local groups, and public and community groups (USCG 2002a). The MTS contains physical elements, including waterways; ports; and the network of railroads, roadways, and pipelines that connect the waterborne portions of the system to the rest of the nation (USCG 2002). The physical elements also include the vessels and vehicles that move goods and people within the system. The physical network is supported by a series of systems that facilitate the movement of goods and people, and provide access for recreation and to natural resources. Aspects such as geography, environmental conditions, and the number and types of vessels make the MTS diverse.

U.S. ports must provide safe and efficient, rapid turnaround capabilities to accommodate expanding trade and the increasing size and speed of oceangoing ships, many of which are foreign. U.S. ports also handle a large volume of coastal and inland traffic. Since the events of September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern.

3.5.2 Affected Environment

The Port of Honolulu, on the Hawaiian Island of Oahu, has served as the Crossroads of the Pacific since it was settled by Polynesians about 1,500 years ago. The protected, reefed basin (whose name translates into “Fair Haven”) has long been an integral part of maritime commerce and trade, providing winter refuge and supplies to sailors and merchants engaged in fur trading, forestry, whaling, farming, gold-digging, and petroleum production. Major Hawaiian exports have, at one time or another, included sandalwood, sugar, and pineapple (HDOT 2004).

Estimates show that Hawaii imports 80 percent of everything it uses, and that 98.6 percent of its imported goods are shipped by sea. The Port of Honolulu is the largest and most important of Hawaii’s commercial harbors, and it serves as the primary port-of-entry for almost all of the state’s imported goods. In 2002, the Port of Honolulu accommodated almost 6,400 cargo vessel trips and handled more than 16.5 million short tons of cargo, making it the figurative lifeline that sustains Hawaii’s modern life (HDOT 2004).

Honolulu’s commercial maritime activity falls primarily into the following categories: Ocean Transportation, Ship Building and Repair, Commercial Fishing, Ocean Recreation, and other support industries. Ocean Transportation activity supports every sector of Hawaii’s economy and brings in almost all imported food, building materials, manufactured goods, and energy products (see Table 3-8). As such, this sector fluctuates with broader economic conditions. The Ship Building and Repair sector, on the other hand, is characterized by slower growth and is impacted primarily by the absence of local parts-manufacturers (resulting in production delays, additional shipping charges, and higher operational costs). Commercial Fishing and Ocean Recreation are export industries that have experienced strong growth and contributed significantly to Hawaii’s income. As a result of these intense waterfront activities, the Port of Honolulu is characterized by its central business district, industrial facilities, cargo and passenger terminals, recreational amenities, bunkering facilities, marine repair docks, and vessel mooring/berthing capacities (HDOT 2004).

Table 3-8. Amount of Waterborne Cargo Handled by Hawaiian Ports in 2002

Commodity	Honolulu (Oahu)	Barbers Point (Oahu)	Kahului (Maui)	Hilo (Hawaii)	Kawaihae (Hawaii)	Nawiliwili (Kauai)
	Cargo (measured in thousands of short tons)					
Coal	577	121	0	0	0	0
Petroleum and Related Products	4,337	5,548	550	429	18	79
Chemicals and Related Products	182	0	21	22	16	8
Crude Materials	679	59	151	49	38	30
Manufactured Goods	5,615	263	1,960	838	1,166	1,104
Food and Farm Products	1,847	0	292	151	104	101
Equipment and Machinery	3,344	0	484	209	302	296
Other	54	0	0	0	0	0
Total	16,636	5,990	3,458	1,765	1,645	1,619

Note: A zero represents a value of less than 500 tons but more than zero. Columns might not add up exactly to the total given.

THIS PAGE INTENTIONALLY LEFT BLANK

4. Environmental Consequences

4.1 Introduction

This chapter presents an analysis of the potential direct and indirect impacts of the Proposed Action and the No Action Alternative on the affected environment as characterized in Section 3.0. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. An analysis of potential cumulative effects is provided in Chapter 5.

As described in Section 2.1, the Proposed Action is the stand-up and operation of the Honolulu MSST. Currently, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation's ports, including the Port of Honolulu. The No Action Alternative fails to meet the purpose and need of the USCG mission. Under the No Action Alternative, disruption to other missions would continue to result in further demand on manpower and current assets. This scenario of vessels and manpower at maximum capacity would possibly make it easier for a terrorist attack to occur. The result might be a potential for adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports, creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long lasting (disruption of commerce activities that could impact the long-term economy). Recovery time would depend on the severity and extent of the loss.

Potential impacts are addressed in the context of the scope of the Proposed Action as described in Section 2.1, and in consideration of the potentially affected environment as characterized in Section 3.

4.2 Biological Resources

4.2.1 Significance Criteria

This section evaluates the potential impacts on biological resources under the Proposed Action and the No Action Alternative. The significance of impact on biological resources is based on the following four factors:

- Importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource
- Proportion of the resource that would be affected relative to its occurrence in the region

- Sensitivity of the resource to proposed activities
- Duration of ecological ramifications

Impacts on biological resources are significant if species or habitats of high concern are adversely affected over relatively large areas. Impacts are also considered significant if disturbances cause reductions in population size or distribution of a species of importance. Threatened or endangered species, if present, will be discussed under each biological resource area.

There is no scientific consensus regarding absolute thresholds for significance regarding noise (MMS 2000). Assessment of potential risk to a particular species must often begin with an estimate of frequency ranges to which the animal's hearing is most sensitive, and the associated thresholds. The range of sounds produced by a species is generally associated with ranges of good hearing sensitivity, but many species exhibit good hearing sensitivity well outside the frequency range of sounds they produce (USN 2002). Scientific research indicates that best hearing thresholds for marine vertebrates range from about 60 dB re 1 μ Pa at 0.1 kHz to about 40 dB re 1 μ Pa at 10 kHz.

Protected and Sensitive Habitats

Impacts on protected and sensitive habitats would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any sensitive, protected, or reporting area habitat
- Direct loss or damage of any sensitive resource within a protected or sensitive habitat
- Excessive noise or presence from normal USCG activities that lessens the habitat value

Wetlands and Seagrasses

The significance of impacts on wetland resources is proportional to the functions and values of the wetland complex. Wetlands function as habitat for plant and wildlife populations, including threatened and endangered species that depend on wetlands for their survival. Wetlands are valuable to the public for flood mitigation, storm water runoff abatement, aquifer recharge, water quality improvement, and aesthetics. Quantification of wetlands functions and values, therefore, is based on the ecological quality of the site as compared with similar sites, and the comparison of the economic value of the habitat with the economic value of the proposed activity that would modify it. A significant adverse impact on wetlands would occur should either the major function or the value of the wetland be significantly altered.

Significance criteria for impacts on seagrass are based on the temporary or permanent loss of seagrass and the impact on species that seagrass in the ROI supports.

Marine Mammals

Impacts on marine mammals would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any habitat.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Level A Harassment, defined in the MMPA as pursuit, torment, or annoyance that has the potential to injure.
- Permanent loss of breeding areas and habitat.
- Substantial interference with movement of any resident species.

Marine mammal hearing varies among species; however, as a group, marine mammal hearing ranges from 0.01 to 200 kHz. Broad generalizations can be made about groups of marine mammals. For example, most toothed whales (odontocetes) hear well in ultrasonic ranges, with functional hearing from 0.2 to 100 kHz. Some toothed whales are able to hear frequencies as high as 200 kHz (NRC 2003). Models indicate that baleen whales (mysticetes) have lower frequency hearing and cannot hear frequencies above 20 to 30 kHz (NRC 2003). It is predicted that blue, fin, and bowhead whales are predicted to hear best, in the range of 0.01 to 0.015 kHz, and Bryde's whales vocalize using frequencies ranging from 0.07 to 0.245 kHz. Most pinnipeds have peak hearing sensitivities between 1 and 20 kHz. Sea otters vocalize in the range of 3 to 5 kHz and manatees vocalize in the range of 2.5 to 5 kHz.

General consensus is that 180 dB re 1 μ Pa is the threshold above which some potentially serious problems in marine mammals' hearing capability could occur (USN 2002). The U.S. Navy concluded that a sound in the 0.1 to 0.5 kHz frequency band could cause serious problems in a marine mammal's hearing capability from the following exposures:

- 1 second at 204 dB
- 1 minute at 186 dB
- 20 minutes at 172 dB
- 8 continuous hours at 160 dB

Sea Turtles

Impacts on sea turtles would be significant if the stand-up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Permanent loss of breeding and nesting areas and habitat.
- Substantial interference with movement of any species.

Little is known about sea turtle hearing. Past research based on brain physiology indicates that sea turtles are able to hear sounds with frequencies ranging from 0.08 to 2 kHz, with maximum sensitivity levels reported between 0.1 and 0.8 kHz and 0.3 and 0.4 kHz (Lenhardt 1994, NRC 2003). Loggerhead sea turtles are capable of hearing sound from 0.25 to 1 kHz (Moein et al. 1994). Preliminary data from continuing research on green sea turtles indicate that they are capable of hearing tones ranging from 0.1 kHz to 0.5 kHz, with a threshold between 107 dB and 119 dB at 0.2 kHz and a threshold between 121 dB and 131 dB at 0.4 kHz (ONR Undated).

Fish

Fisheries impacts could result primarily from impacts on fish habitat changes to fish populations. Impacts on fisheries would be significant if stand-up and operation of the MSST resulted in any of the following outcomes:

- Overfishing resulting in the species' inability to survive.
- Permanent loss of breeding areas, EFH and/or Habitat Area of Particular Concern (HAPC).
- Substantial interference with movement of any resident species or migration of anadromous species (i.e., species that migrate from salt water to fresh water).

Generally, fish hearing ranges from 0.5 to 1 kHz, although some fish can hear frequencies as high as 200 kHz.

Coastal and Other Birds

Impacts on coastal and other birds, particularly diving birds, would be significant if the stand-up and operation of the MSST resulted in any of the following outcomes:

- Temporary or permanent loss of critical habitat, including breeding and nesting areas.
- Direct loss (take) of a substantial number of a specific species that would affect the species' ability to survive.
- Harassment of nesting and foraging areas resulting in the species' inability to survive.
- Substantial interference with migration.

Studies with other (noncoastal) species indicate that birds are sensitive to low-frequency sounds in air. However, there are little data on seabird hearing underwater, and there is no evidence that seabirds are affected by changes in underwater sound (USN 2001).

4.2.2 Potential Impacts

Under the Proposed Action, no direct impacts would occur on protected and sensitive habitats, wetlands, or threatened and endangered species or their critical habitat; minor adverse impacts would occur on marine mammals, sea turtles, EFH, and fisheries. This assessment is based on the proposed stationing and operation of an MSST in the Honolulu ROI.

MSST operations would comply with laws relating to protected and sensitive habitats, marine mammals, and threatened and endangered species (including MMPA, Research, and Sanctuaries Act; the MSA; the Oil Pollution Act; the ESA) and USCG programs such as Ocean Steward and Ocean Guardian.

Protected and Sensitive Habitats

Proposed Action. No direct impacts on protected and sensitive habitats would occur as a result of the Proposed Action. Proposed construction would be short-term and would consist of constructing two pre-engineered buildings. Neither the proposed construction, nor the public boat ramp at Keehi Lagoon is within protected or sensitive habitats.

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore, they would not introduce new or unanticipated direct impacts on marine resources within the ROI. Indirect impacts on protected and sensitive habitats from emissions on air or water might occur, but would be negligible. Under a normal operational scenario with the Defender Class Boats operating at 10-12 knots, the Proposed Action would have no potential to disturb protected areas or significantly impact sensitive habitats. Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where public safety or national security is at risk. An MSST would not enter a protected or sensitive habitat unless pursuing a threat. A boat being pursued by an MSST may be deterred from entering shallow, sensitive habitats to avoid becoming damaged or grounded and thus

apprehended. Boats traveling at high speed have the potential for direct, adverse impacts to seagrass beds, coral reefs or protected animals from boat hull or propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. Potential direct impacts to animals are discussed further in the following sections. High speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is, and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on protected and sensitive habitats. Recovery would depend on the extent and type of damage.

Wetlands and Seagrass

Proposed Action. No significant adverse direct impacts on wetlands or seagrass would be expected as a result of the Proposed Action. Onshore construction associated with the Proposed Action would be short-term and would consist of the building of two pre-engineered structures. The proposed onshore construction would not occur in wetlands and would not affect seagrass, and the ISC is not within the 100-year floodplain.

The Defender Class Boats are similar to other boats in the highly trafficked areas which they patrol; therefore they would not introduce new or unanticipated impacts within the ROI. Shallow-water estuarine wetland areas would not be used during MSST operations, and the low speeds used during normal operations would minimize impacts on benthic habitat or submerged obstacles. Indirect impacts from emissions on air or water might occur, but would be negligible.

Under a normal operational scenario with the Defender Class Boats operating at 10-12 knots, the Proposed Action would have no potential to disturb wetlands or seagrass. Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where public safety or national security is at risk. An MSST would not enter a seagrass bed unless pursuing a threat. A boat being pursued by an MSST may be deterred from entering a wetland or seagrass beds to avoid becoming

damaged or grounded and thus apprehended. Boats traveling at high speed have the potential for direct, adverse impacts to wetlands or seagrass beds from propeller strikes. As boats travel faster, they typically ride higher in the water, possibly lessening the potential for direct impacts. Such impacts are expected to be rare, and therefore would not be significant. High speed boats might also have indirect, adverse impacts by producing large wakes that would cause sand to bury or partially bury seagrass beds. Such impacts would also be rare and short-term, and therefore would be minimal.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk and potential of a terrorist attack, with the potential for loss of wetlands and their unique ecosystems. Recovery would depend on the extent of loss.

Marine Mammals

Proposed Action. Although several protected whale and dolphin species, as well as the endangered Hawaiian Monk seal, inhabit the ROI, no significant adverse direct impacts on marine mammals are expected to occur as a result of the Proposed Action. The USCG has protocols in place to protect whales and other marine mammals. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due to ship strikes. These protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG 2003). The USCG's current COMDTINSTs, regulations, and procedures to avoid marine mammals would continue under the Proposed Action. While the purpose of the MSST is not to provide marine resource protection or law enforcement, the Proposed Action would comply with all Federal and state environmental laws and USCG protocols, including Ocean Steward. Indirect impacts from emissions on air or water quality might occur, but would be negligible.

To guard against any adverse impacts of the Defender Class Boat's operation on marine mammals, the USCG would continue to adhere to the protective measures in place including the policies and goals stated in the Ocean Steward (see Appendix F). The same navigational standards used by the Defender Class Boats when approaching an unknown object would be used in response to a marine mammal sighting (Fazio 2005).

The Hawaiian monk seal is not usually seen from vessels underway. The most common marine mammal encounter underway is the humpback whale. Speed guidance regarding encounters with right and humpback whales is distributed via a "message to all field units such as cutters and smallboat stations." This message states that vessel operators should use extreme caution during whale season (December 1 through May 31) and that rule 6 of the International Regulations for Avoiding Collisions At Sea (Rules of the Road) should be observed. A proper lookout should be maintained at all times. If a whale is sighted, the vessel should consider reducing speed. A further reduction in speed may be considered if the whale is within 1 nautical mile of the vessel. No specific speed guidance is given since different vessels have different handling characteristics. At all times a vessel must maintain a distance of 500 yards for right whales and 100 yards for other whales. The provisions of the MMPA and the ESA also apply (Wilson 2005). Therefore, there would be no significant adverse impacts on marine mammals as a result of the operation of six Defender Class Boats.

Elements of the Proposed Action that involve construction would be short-term and would consist of building two on-shore pre-engineered structures, and therefore have no potential to impact marine mammals.

The primary mission of the Honolulu MSST is escorting vessels, therefore, the speed of the Defender Class boats would depend on the speed of the vessel being escorted. However the Defender Class Boats are designed to be highly maneuverable, which would assist them in avoiding collisions with marine mammals. Furthermore, to prevent the Defender Class Boats from adversely impacting marine mammals, the USCG would continue to adhere to the protective measures described in the Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A).

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that use the Port of Honolulu on a daily basis. It is likely that only two to four Defender Class Boats would be used under normal operations. Even though the Defender Class Boats are capable of 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations which necessitate high speed.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations where the boat speed exceeds 13 knots, the risk of a collision with marine mammals would increase. Such impacts are expected to be rare, and therefore would not be significant. In the unlikely event that there was a collision between an MSST vessel and a threatened or endangered marine mammal, the USCG would follow the emergency consultation procedures under 50 CFR Section 402.05.

Implementation of the Proposed Action could result in minor adverse direct impacts on marine mammals resulting from localized, short-term increases in airborne and waterborne noise. It is anticipated that only temporary, minor adverse impacts, if any, would occur. Given the small number and size of the Defender Class Boats involved in the Proposed Action, as well as their high level of maneuverability and relatively slow operating speed (during normal operations), only minor adverse impacts on marine mammals would be expected from the stand-up and operation of an MSST in the Port of Honolulu.

Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and the USFWS on September 3, 2004. All comments received from NOAA Fisheries during the informal ESA consultation were addressed in this EA. The correspondence relating to the Section 7 ESA consultation is presented in Appendix B.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This alternative would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk of a terrorist attack and the potential for significant adverse impacts on marine mammals that such an attack could cause. Recovery would depend on the extent of loss.

Sea Turtles

Proposed Action. Although five species of sea turtles inhabit the ROI, no significant adverse direct impacts on sea turtles are expected to occur as a result of the Proposed Action. The USCG has protocols in place to protect sea turtles. These protocols allow for the general protection and conservation of various marine species, and include specific measures to prevent injury or death due

to ship strikes. The same navigational standards used by the Defender Class Boats when approaching an unknown object would be used in response to a sea turtle sighting. In such a situation, the Defender Class Boat would slow to the minimum speed possible, assess the situation, and proceed as necessary, thereby, avoiding collisions with sea turtles.

There are also protocols also allow for strategic collaboration with various Federal and state agencies to implement major actions (USCG 2003). While the purpose of the MSST is not to provide marine resource protection or law enforcement, the Proposed Action would comply with all Federal and state environmental laws and all USCG protocols, including Ocean Steward.

Proposed construction would be short-term and would consist only of building two on-shore pre-engineered structures; therefore, it would have no direct or indirect impact on sea turtles.

The primary mission of the Honolulu MSST is escorting vessels, therefore, the speed of the Defender Class Boats would depend on the speed of the vessel being escorted. However the Defender Class Boats are designed to be highly maneuverable, which would assist them in avoiding collisions with sea turtles. Furthermore, to prevent Defender Class Boat operations from adversely impacting sea turtles, the USCG would continue to adhere to the protective measures described in the Protected Living Marine Resources Program (COMDTINST 16475.7) and the USCG Participation in the Marine Sanctuaries Program (COMDTINST 16004.3A).

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce new or unanticipated impacts within the ROI. The six new Defender Class Boats would be a negligible addition to the large number of commercial and recreational vessels that use the Port of Honolulu on a daily basis. It is likely that only two to four Defender Class Boats would be used under normal operations. Even though the Defender Class Boats are capable of 40 knots, this speed would not be used on a continuous basis and would usually be reserved for emergency security operations which necessitate high speed.

Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations where the boat speed exceeds 13 knots, the risk of a collision with sea turtles would increase. Such impacts are expected to be rare, and therefore would not be significant. In the unlikely event that there was a collision between an MSST vessel and a threatened or endangered sea turtle, the USCG would follow the emergency consultation procedures under 50 CFR Section 402.05.

Implementation of the Proposed Action could result in minor adverse direct or indirect impacts on sea turtles resulting from localized, short-term increases in airborne and waterborne noise. It is anticipated that only temporary, minor adverse impacts, if any, would occur. Given the small number and size of the Defender Class Boats involved in the Proposed Action, as well as their high level of maneuverability and relatively slow operating speed (during normal operations), only minor adverse impacts on sea turtles would be expected from the stand-up and operation of an MSST in the Port of Honolulu.

Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries, Protected Resources Division and the USFWS on September 3, 2004. All correspondence relating to the Section 7 ESA consultation is presented in Appendix B.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse impacts on sea turtles that such an attack might cause. Recovery would depend on the extent of loss.

Fish

Proposed Action. No significant adverse direct impacts on fisheries or EFH are expected to occur as a result of the Proposed Action. The USCG would continue to enforce fisheries laws under its Ocean Guardian, Ocean Steward, and Protected Living Marine Resources Programs (COMDTINST 16475.7).

Proposed construction would be short-term and would consist only of building two on-shore pre-engineered structures; therefore, it would have no direct and indirect impacts on fish.

The Defender Class Boats are similar to other boats in the highly trafficked areas they patrol; therefore, they would not introduce any new or unanticipated impacts on fisheries or EFH within the ROI. Implementation of the Proposed Action could result in minor adverse direct impacts on fish from collision with the Defender Class Boats or its propellers. However, vessels produce pressure waves around them which reach the fish and generally cause them to move away from the boat. Therefore, the potential for collisions is reduced and the impact would be negligible.

Pursuant to Section 305(b) of the MSA, the USCG initiated an EFH consultation with NOAA Fisheries' Habitat Conservation Division on September 3, 2004. NOAA Fisheries concluded that the Proposed Action would not have an adverse impact on EFH. All correspondence relating to EFH and ESA Section 7 consultation is included in Appendix B. Pursuant to Section 7 of the ESA, the USCG initiated informal consultation with NOAA Fisheries Protected Resources Division and the USFWS, all correspondence related consultation is presented in Appendix B.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This alternative would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected, due to the increased risk of a terrorist attack and the potential for significant adverse effects due to the potential of a terrorist attack that might result in a loss or degradation of fishing areas. The potential for loss of EFH and fish species could also impact the nation's economy. Recovery would depend on the extent of the loss.

Coastal and Other Birds

Proposed Action. The Proposed Action would have no significant adverse direct impacts on coastal and other bird species that occur in the ROI.

Proposed construction would be short-term and would consist only of building two on-shore pre-engineered structures; therefore, it would have no significant impact on coastal or other bird species.

Implementation of the Proposed Action could result in minor adverse impacts on coastal and other birds resulting from localized, short-term increases in airborne and waterborne noise, and from air emissions. Normal MSST operations would not be within nesting and foraging habitat for threatened or endangered coastal or migratory birds. It is anticipated that only temporary, negligible adverse impacts, if any, would occur. Speeds in excess of 12 knots are only expected to be utilized in emergency situations, where the MSST would be responding to a specific threat and public safety or national security is at risk. In emergency situations the noise produced from the boats would increase and might cause birds to flush from their nesting, roosting, or foraging sites. However, the effect from the passing boats would be temporary and therefore not significant.

Pursuant to Section 7 of the ESA, the USCG initiated consultation with the USFWS on September 3, 2004. All correspondence relating to the ESA consultation is presented in Appendix B.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased demand on vessels and manpower and disruption to other missions would continue. This would not meet the USCG's requirement to provide maritime security and would possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected due to the increased risk of a terrorist attack and the potential for significant adverse effects on coastal and migratory birds. Recovery would depend on the extent of loss.

4.3 Air Quality and Climate

4.3.1 Significance Criteria

The potential impacts on local and regional air quality conditions near a proposed Federal action are determined based upon the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. Impacts on air quality in NAAQS "attainment" areas are considered significant if the net changes in project-related emissions result in one of the following situations:

- Violation of any national or state ambient air quality standards
- Exposure of sensitive receptors to substantially increased pollutant concentrations
- An increase of 10 percent or more in an affected AQCR

Federal Prevention of Significant Deterioration (PSD) regulations also define air pollutant emissions to be "significant" if (1) a proposed project is within 10 kilometers of any Class I area and (2) regulated pollutant emissions would cause an increase in the 24-hour average concentration of 1 $\mu\text{g}/\text{m}^3$ or more of any regulated pollutant in the Class I area (40 CFR 52.21(b)(23)(iii)). PSD regulations also define ambient air increments—limiting the allowable increases to any area's baseline air contaminant concentrations, based on the area's designation as Class I, II, or III (40 CFR 52.21(c)). Local and regional pollutant impacts of direct and indirect emissions from stationary emissions sources from the Proposed Action are addressed through Federal and state permitting program requirements under the New Source Review and PSD regulations (40 CFR Parts 51 and 52).

4.3.2 Potential Impacts

The potential sources of increased criteria pollutant emissions under the Proposed Action would be from (1) watercraft operations, (2) personnel commuter travel, (3) maintenance and support activities, and (4) fuel storage and handling emissions.

Watercraft Operations

Proposed Action. The vessels and engines that would be used for the Defender Class Boats must meet specific requirements, including the capability of sustaining speeds of 40+ knots in calm seas. The proposed engines that would be used would be Honda 225 hp engines. These four-stroke engines would meet the speed requirements of the USCG and would fulfill Federal USEPA 2006 emission requirements. The Proposed Action will be assessed on impacts to the AQCR current emissions inventory.

Under the Proposed Action, minor impacts on air quality would be realized. The EA used conservative calculations of air pollutant emissions from the proposed MSST operations: two boats operating 24 hours a day, 365 days a year, at approximately 20 hp (see Appendix E)..

Personnel Commuter Travel

Proposed Action. The number of additional personnel is comparatively small (77 active duty) and would result in minor adverse impacts on air quality from personal commuter travel. Calculations of air pollutant emissions from the proposed personal commuter travel operations were performed based on an average fleet model from 2000, commuting an average of 30 miles each way to the Honolulu MSST facility, 240 days a year (see Table 4-1 and Appendix E).

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Maintenance and Support Activities

Proposed Action. Under the Proposed Action, only minor maintenance would be performed at the Honolulu MSST facility. All major maintenance and repair would occur at other military or commercial facilities. Since the maintenance schedule is not known, it is anticipated that there would

be minor adverse impacts on air quality in the region. No additional support facilities (beyond the minor modifications to the administration building) would be required to support the MSST.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Fuel Storage and Handling Emissions

Proposed Action. No new fuel storage or dispensing facilities would be required under the Proposed Action. Defender Class Boats would be refueled at existing marina facilities or gas stations. All dispensing facilities would have regulated vapor controls to reduce evaporative emissions. It is anticipated that there would be minor adverse direct impacts on air quality in the region.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined not to be sufficient. Under this alternative, disruption to other missions would continue.

This scenario of vessels and manpower being stretched to their limit would possibly make it easier for an attack to occur. Impacts of selecting this alternative would be considered significantly adverse due to the potential of a terrorist attack. Terrorists could strike at military or commercial facilities in these ports creating the potential for impacts on the environment, as well as loss of petroleum storage tanks and delivery systems, thus impacting the economy. The impacts could be immediate or long-lasting. Recovery time would be dependent on the severity and extent of the impact.

Conformity

The Federal General Conformity Rule (40 CFR, Part 93) is not applicable to the Proposed Action, since there are no USEPA-designated nonattainment areas affected. However, an analysis has been completed to ensure that, given the changes in direct and indirect emissions of the O₃ precursors (NO_x

and VOCs), PM₁₀, and CO, the Proposed Action would be in conformity with applicable CAA requirements. For purposes of determining conformity in this attainment area, projected regulated pollutant emissions associated with the Proposed Action were estimated using available construction emissions and other nonpermitted emissions source information. The emissions calculations are collectively presented in Appendix E.

Table 4-1 presents total air quality emissions from the Proposed Action and Table 4-2 compares the Proposed Action emissions to the total state of Hawaii AQCR emissions inventory. Based on the emissions calculations and analyses completed for the Proposed Action, it is clear that the net change in NO_x and VOC emissions would be clearly *de minimis* and well below the 10 percent regional significance requirements of the General Conformity Rule. As such, this Federal action is exempt from a Conformity Determination and all other requirements that are specified under the General Conformity Rule and applicable regulations (40 CFR Part 93).

Table 4-1. USCG MSST—Honolulu Emissions from Proposed Action

Vehicle Category	VOC Emissions (tpy)	NO _x Emissions (tpy)	CO Emissions (tpy)	SO _x Emissions (tpy)	PM ₁₀ Emissions (tpy)
Watercraft Operations	2.77	6.33	27.68	0.26	0.26
Commuter and Tow Vehicles	1.35	1.56	19.43	0.10	1.19
Total Emissions	4.12	7.88	47.11	0.34	1.46

Notes: tpy – tons per year

Table 4-2. Net Emissions Changes for State of Hawaii AQCR Under the Proposed Action

	VOC (tpy)	NO _x (tpy)	CO (tpy)	SO ₂ (tpy)	PM ₁₀ (tpy)
State of Hawaii AQCR Inventory	72,975	36,679	333,640	40,993	40,213
Proposed Action Net Change	4.12	7.88	47.11	0.34	1.46
Percent of State of Hawaii Interstate AQCR Inventory	0.0056	0.0215	0.0141	0.0008	0.0036

Source: USEPA 1999

4.4 Noise

4.4.1 Significance Criteria

This section addresses the noise impacts from the Proposed Action and the No Action Alternative. Examples of noise impacts from the Proposed Action include noise from vessels, construction equipment (temporary), and traffic. Noise produced by water vessels and supporting facilities while homeported or in transit can combine with other noise sources to affect nearby communities and natural resources. Noise impacts were only considered within the ROI. The impacts of noise on marine animals are discussed in Section 4.2.2.

The USCG establishes guidelines and develops cooperative agreements to mitigate impacts on neighboring communities. Federal and state laws and local ordinances establish standards and limitations for noise output from ports, airfields, heliports, helipads, power-generating plants, and motor vehicles. USCG activities are operated in accordance with all Federal and state laws and local ordinances.

Noise impact criteria normally are based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations.

Airborne Noise

The significance of above-water noise impact criteria normally is based on a combination of land use compatibility guidelines and factors related to duration and magnitude of the noise level, including the time of day and the conduct of operations. USEPA has determined that 75 dB at 50 feet is an acceptable noise level to protect public health and welfare (PWIA 2002).

Waterborne Noise

The significance of waterborne (underwater) noise is based on the duration and magnitude of the noise level and is relative to the existing ambient noise level. The significance criteria of impacts of waterborne noise on marine organisms and other biological resources are discussed in Section 4.2.1.

4.4.2 Potential Impacts

The Proposed Action would result in minor adverse noise impacts on human health and welfare under normal operating conditions. A detailed description of the analysis is presented below.

Airborne Noise

Proposed Action. Test data for the Honda 225-hp outboard engine, running at full throttle on a standard boat hull, found that the airborne noise produced was 72.2 db(A) at 82 feet (25 m) from the source (Honda 2004). Test data was not available for the engines at 50 feet; however, the engine speed was higher than the normal operating speed of 10-12 knots. Therefore, noise emissions from the MSST should be below the threshold of 75 dB at 50 feet to protect public health and welfare.

It is anticipated that the additional airborne noise created by the Proposed Action would be indistinguishable from existing vessel activity and ambient noise in the ROI. Minor adverse noise impacts could occur in the ROI during unusual events (e.g., high-speed pursuits), depending on the location of the event relative to the location of sensitive noise receptors. The potential for such impacts would be minimized by the use of four-stroke engines on the Defender Class Boats.

Minor direct noise impacts on human health and welfare could result from the Proposed Action under normal operating conditions. Since there are no identified noise sensitive areas in the ROI, sound exposure levels were not calculated. The ROI is a large geographic area comprising the Port of Honolulu and the coastal waters surrounding the main Hawaiian Islands and Guam (see Figure 1-2). Airborne noise impacts from marine vessel operations is rarely an issue of concern because the majority of the population lives near waterways and has become familiar with the sound of passing boats and ships. Under normal operating conditions, vessel speeds would be expected to be generally low (10 to 12 knots). It is anticipated that the MSST would operate 12 hours a day, 7 days per week, and that there would be two to three boats operating at any given period. All operations of the MSST would be in accordance with all Federal and state laws and local noise ordinances.

Minor direct noise impacts could result from the construction of the MSST storage and administrative facilities. These impacts would be localized and would be short-term in nature.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of Honolulu plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this

alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

Waterborne Noise

Proposed Action. No significant direct impact on existing ambient noise levels would result from the Proposed Action. Increase in vessel traffic from the addition of six Defender Class Boats would be negligible relative to the number of vessels that already utilize the ROI. Underwater noise generated by existing vessels is variable and pervasive, and would not be significantly increased by the addition of six Defender Class Boats. MSST vessel operations would be conducted at relatively low speeds (10 to 12 knots), except during an unusual event (e.g., high-speed pursuit). It is anticipated that the proposed USCG operation within the ROI would be indistinguishable from existing vessel activity and the ambient noise environment. During unusual events, minor short-term adverse noise impacts could occur in the ROI, depending on the location of the event relative to a sensitive noise receptor. The likelihood of such impacts would be minimized by the use of four-stroke engines on the Defender Class Boats.

No Action Alternative. Under the No Action Alternative, existing conditions would remain unchanged and the MSST would not be stood up. Because of the important role that the Port of Honolulu plays in the local, state, and regional economy, the Port would continue to pursue its major economic duties. Since thousands of ships navigate the Port annually, existing noise conditions would persist in their current state. The USCG would maintain its current level of protection, which has been determined to be insufficient. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Short-term temporary noise impacts could occur if the selection of this alternative results in a terrorist attack on military or commercial facilities in the Port. Recovery time would depend on the severity and extent of the impact.

4.5 Public Safety

4.5.1 Significance Criteria

This section addresses the impacts on public safety as a result of the Proposed Action. If implementation of the Proposed Action were to substantially increase risks associated with the safety of USCG personnel (including MSST personnel), workers and visitors, or the local community, or substantially hinder the USCG's ability to respond to an emergency, it would represent a significant impact. Furthermore, if implementation of the Proposed Action would result in incompatible land use

with regard to safety criteria, impacts on safety would be significant. This document assumes that the loss of one or more ships or the loss of life would be significant.

4.5.2 Potential Impacts

The establishment of the MSST would provide beneficial impacts on public safety through additional security to the military and commercial assets within the ROI.

Proposed Action. The Proposed Action would increase the USCG's ability to protect the critical Port of Honolulu, the main Hawaiian Islands, Guam, and the MTS from warfare and terrorist attacks. The MSST's operations would closely parallel USCG traditional port security operations, and would provide complementary, nonredundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. The MSST would escort a variety of vessels and maintain specific security zones in each port. It is capable of operating 7 days a week, 24 hours a day, in all weather conditions. It would operate with and be supported by both military and civilian government organizations and commercial and nongovernmental entities. Beneficial impacts would be expected from implementation of the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing security conditions would remain unchanged and the MSST would not be stood up. The USCG would maintain its current level of protection, which has been determined to be insufficient. Additional boats and personnel would only be assigned to the Honolulu MSST under unusual circumstances. Under this alternative, disruptions to other missions would continue and the utilization of vessels and manpower at maximum capacity could possibly make it easier for an attack to occur. Significant adverse impacts would be expected should this alternative be selected and result in a terrorist attack on military, commercial, or residential facilities in the ROI. Such an attack could create health and safety hazards for the surrounding populace, and impact appropriate emergency responses. The impacts would be immediate, and could be temporary or long-lasting. Recovery time would depend on the severity and extent of the impact.

5. Cumulative Impacts

5.1 Cumulative Impacts Methods

Cumulative impacts on environmental resources result from incremental effects of proposed actions, when combined with other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively substantial actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals (40 CFR 1508.7). Informed decisionmaking is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future.

Other projects evaluated in this section include planned or reasonably foreseeable projects by the USCG, other agencies, and businesses. Planned or reasonably foreseeable projects were identified through a review of public documents, Internet searches, other NEPA documents, and local newspaper articles.

5.2 Cumulative Impacts Analysis

As the primary port-of-entry for most of Hawaii's imported goods, the Port of Honolulu is the lifeline of the state's economy. Its success as a world-renowned harbor has enabled Honolulu to evolve from a small fishing village into a capital city that supports the state's business, commercial, and tourism centers, as well as more than 884,000 residents. Major projects have included dredging operations, support-structure maintenance, wharf and pier renovation, cargo facility expansion, and shipping/cruise terminal construction. The result is that the Port of Honolulu is now one of the most valuable U.S. harbors and the center of Pacific commerce. In 2002, the Port was visited by almost 6,400 ocean-going vessels carrying more than 16 million short tons of cargo.

Numerous maritime development projects have recently been completed, are under way, or are planned within the Port of Honolulu. For example, in 2003, the state completed construction of a \$5 million passenger terminal that offers ticketing counters, waiting areas, and baggage handling facilities. A large ferry service provider, Hawaii Superferry, is negotiating to use this terminal as the operational base for two catamaran vessels capable of carrying 900 passengers and 280 vehicles each. These state-of-the-art vessels, which cost \$75 million apiece, could provide the region with high-speed interisland passenger, vehicle, and freight transport as early as 2006.

Additionally, two state agencies are trying to bolster business and tourism activity in the city's maritime industrial district by funding multimillion dollar improvements at Honolulu Harbor's Pier 2. The Hawaii Department of Transportation is soliciting bids to convert one side of the pier into a passenger-friendly cruise ship terminal. The project is expected to cost between \$15 and \$25 million. Meanwhile, the DBEDT is proposing to add more than 40,000 ft² of office space and 4,000 ft² of warehouse space to the area. At a combined cost of more than \$10 million, the two phases of this project should be completed in 2007. Finally, the Aloha Tower Development Corporation has proposed a \$360 million redevelopment project that would extend from Piers 2 to 6.

Compared to other ongoing and planned activities in the Port of Honolulu, the Proposed Action is a relatively small initiative that would not measurably add to other activities within the Port of Honolulu. The Proposed Action would not stimulate additional economic growth in the region, but would enhance current and future maritime activity by providing increased port security. Given the large number of recreational and commercial vessels that currently utilize the Port, the Proposed Action would cause a negligible increase in vessel traffic. Airborne and waterborne noise created by the Proposed Action would also be negligible compared to the existing ambient noise conditions. Table 5-1 summarizes potential cumulative effects on resources from the Proposed Action when combined with other past, present, and future activities.

Table 5-1. Cumulative Effects on Resources

Resource	Past Actions	Current Background Activities	Proposed Action	Known Future Actions	Cumulative Effects
Noise	Honolulu airport, shipping and road noise are dominant noise sources.	Airport, road noise, and vessel traffic are dominant noise sources.	Increase in noise from construction activities, traffic, and MSST operations.	None.	Existing airport, road noise and vessel traffic will be dominant noise sources. Effect not significant.
Land Use	Creation of Sand Island and its development as a location of light industry and a shipping terminal.	Construction, shipping, and commercial activities, and development of Sand Island.	No change in land use.	Continued use of Sand Island for light industry and shipping.	None.
Air Quality	Attainment area for all criteria pollutants.	Emissions from construction equipment and vehicles.	Increased vehicle and MSST traffic.	Continued growth in shipping and tourism.	Continued maintenance area. Effect not significant.
Biological Resources	Degraded historic habitat of sensitive and common wildlife species.	Development of Port of Honolulu impacted wildlife and their habitat.	Minor adverse impacts would be expected to marine mammals and sea turtles from MSST operations.	Continued development of the Port of Honolulu would impact aquatic communities and their habitat.	Continued development of the Port of Honolulu would impact low-quality habitat. Effect not significant.
Public Safety	Development of Honolulu resulted in increased crime. Increased threat of terrorism.	Criminal activities commonly associated with urban environment and a heightened threat of terrorism.	Deterrence of terrorist activities or minimize adverse impact from terrorist activities.	Heightened threat of terrorism.	None.

THIS PAGE INTENTIONALLY LEFT BLANK

6. Preparers

Suanne Collinsworth

e²M

M.S. Environmental Sciences and Engineering

B.S. Geology

Certificate of Water Quality Management

Years of Experience: 7

Shari Currey

e²M

M.S. Oceanography/Marine Resource Management

B.S. Biology/Marine Ecology

Years of Experience: 7

Tim Demorest

e²M

A.M. Classical Studies

B.A. Classical Studies

Years of Experience: 2

Melissa Ellinghaus

e²M

M.E.S. Environmental Policy

B.S. Biology

Years of Experience: 4

Brian Hoppy

e²M

Project Manager

B.S. Biology

Certificate of Environmental Management

Years of Experience: 12

Rachel Schneider

e²M

B.A. Chemistry with Environmental Studies

Years of Experience: 3

Ron Lamb

e²M

M.S. Environmental Science

M.A. Political Science (International Economics concentration)

B.A. Political Science

Years of Experience: 19

Sean McCain

e²M

M.B.A. Business Administration

B.S. Forestry and Natural Resource Management

Years of Experience: 8

Lauri Watson

e²M

B.S. Environmental Science

Years of Experience: 2

Valerie Whalon

e²M

M.S. Fisheries Science

B.S. Marine Science

Years of Experience: 10

Mary Young

e²M

B.S. Environmental Science

Years of Experience: 2

7. References

- Cowan 1994 Cowan, James P. 1994. *Handbook of Environmental Acoustics*.
- DeMello 2004 DeMello, Joshua. 2004. E-mail correspondence between Mr. Joshua DeMello (Western Pacific Management Council) and Ms. Valerie Whalon (engineering-environmental Management, Inc.) regarding EFH for species managed by the Western Pacific Management Council. January 26, 2004.
- Fazio 2005 Fazio, LT. 2005. Personal communication between Lt. Fazio (USCG, Honolulu MSST) and Ms. Valerie Whalon (e²M) regarding vessel operations in response to sea turtle and marine mammal sightings. March 9, 2005.
- FICON 1992 Federal Interagency Committee on Noise (FICON). 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues*. August 1992.
- Gardner 2004 Gardner, E. 2004. *Hawaii's Marine Life: Whales, Dolphins, Turtles and Seals, A Course of Study*. Available online: <<http://www.earthtrust.org/wlcurric/whales.html>>. Accessed July 23, 2004.
- Handley 1995 Handley, Lawrence R. 1995. Seagrass Distribution in the Northern Gulf of Mexico. In: Status and Trends of the Nation's Biological Resources. U.S. Geological Service. National Biological Service. Available online: <<http://biology.usgs.gov/s+t/noframe/m4144.htm#21395>>. Accessed June 1 2004.
- HDOT 2004 Hawaii Department of Transportation (HDOT). 2004. Available online: <<http://www.state.hi.us/dot/harbors>>. Accessed July 21, 2004.
- Honda 2004 Honda Motor Corporation (Honda). 2004. ED and ISO 14509 Outboard Noise Emission Test Report, Honda Motor Co., Ltd., October 28, 2004.
- Honolulu 2001 City and County of Honolulu. 2001. *Sand Island Parkway Wastewater Pump Station Modifications, Final Environmental Assessment*. Prepared by GMP Associates, Inc. January 2001.
- Lenhardt 1994 Lenhardt, Martin T. 1994. "Seismic and very low frequency sound induced behaviors in captive loggerhead marine turtles (*Caretta caretta*).” In *Proceedings of the Fourteenth Annual Symposium on sea turtle biology and conservation*. NOAA Technical Memorandum NMFS-SEFSC-351.
- Maharaj and Carpenter 1997 Maharaj, V. and J.E. Carpenter. 1997. The 1996 Economic Impact of Sport Fishing in Hawaii. Available online: <<http://www.pifsc.noaa.gov/fmep/recreation/literature.html>>. Accessed July 21, 2004.
- Moein *et al.* 1994 Moein, Soraya E., J.A. Musick, M.L. Lenhardt. 1994. "Auditory behaviour of the loggerhead sea turtle (*Caretta caretta*).” In *Proceedings of the Fourteenth Annual Symposium on sea turtle biology and conservation*. NOAA Technical Memorandum NMFS-SEFSC-351.
- MMS 2000 MMS. 2000. *Environmental Assessment of the Gulf of Mexico Deepwater Operations and Activities*. OCS EIS/EA MMS 2000-001. New Orleans, LA: USDOl, MMS, Gulf of Mexico OCS Region.
- NMFS 2001 National Marine Fisheries Service (NMFS). 2001. Final Environmental Impact Statement, Fishery Management Plan, Pelagic Fisheries of the Western Pacific Region. NMFS Southwest Region.
- NMFS 2002 NMFS. 2002. *Biological Opinion on Gulf of Mexico Outer Continental Shelf Multi-lease Sale (185, 187, 190, 192, 194, 198, 200, 201)*. Endangered Species Act—Section 7 Consultation. F/SER/2002/0718.

- NMFS and USFWS 1992 NMFS and U.S. Fish and Wildlife Service (USFWS). 1992. *Recovery Plan for Leatherback Turtles (Dermochelys coriacea) in the U.S. Caribbean, Atlantic and Gulf of Mexico*. Washington, DC: USDOC, National Oceanic and Atmospheric Administration, NMFS.
- NOAA 1996 National Oceanic and Atmospheric Administration (NOAA). 1996. *Our Living Oceans: The Economic Status of U.S. Fisheries, 1996*. Available online: <<http://www.st.nmfs.gov/econ/oleo/oleo.html>>. Accessed July 22, 2004.
- NOAA 2004a NOAA. 2004. *Habitat Connections: Wetlands, Fisheries and Economics*. Available online: <<http://www.nmfs.noaa.gov/habitat/habitatconservation/publications/habitatconnections/habitatconnections.html>>. Accessed July 22, 2004.
- NOAA 2004b NOAA. 2004. Hawaiian Islands Humpback Whale NMS: The Humpback Whale. Available online: <<http://hawaiihumpbackwhale.noaa.org/about/humpback.htm>>. Accessed July 26, 2004.
- NOAA Fisheries 1999a NOAA Fisheries. 1999. *Amendment 1 to the Atlantic Billfish Fishery Management Plan*. Available online: <<http://www.nmfs.noaa.gov/sfa/hms/>>. Accessed April 2003.
- NOAA Fisheries 1999b NOAA Fisheries. 1999. *Final Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks*.
- NRC 2003 National Research Council (NRC). 2003. *Ocean Noise and Marine Mammals*. National Academy Press, Washington, D.C.
- O'Bannon 2003 O'Bannon, B.K., ed. 2003. *Fisheries of the United States—2002*. Silver Spring, MD: USDOC, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Science and Technology.
- ONR 2000 Office of Naval Research (ONR). 2000. *Draft Environmental Impact Statement for the North Pacific Acoustic Laboratory*. Arlington, Virginia. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Protected Resources, Silver Spring, Maryland. State of Hawaii, Department of Land and Natural Resources, Honolulu, Hawaii. May 2000.
- ONR undated ONR. Undated. *Ocean Life: Green Sea Turtle – Current Research*.
- PWIA 2002 Personal Watercraft Industry Association (PWIA). 2002. The Facts About Personal Watercraft. Available online: <<http://www.pwia.org/factsabout.html>>. Accessed July 23, 2002.
- Richardson *et al.* 1995 Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise*. Academic Press.
- Turtle Trax 2004 Turtle Trax. 2004. The Hawaiian Green Turtle (*Chelonia mydas*). Available online: <<http://www.turtles.org/hawgrnd.htm>>. Accessed July 23, 2004.
- USACE 2002 United States Army Corps of Engineers (USACE). 2002. Waterborne Commerce of the United States, Part Four-Waterways and Harbors, Pacific Coast, Alaska and Hawaii. Available online: <<http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm>>. Accessed July 30, 2004.
- USCG 1992a U.S. Coast Guard (USCG). 1992. *Base Honolulu Master Plan*.

- USCG 1992b USCG. 1992. *Hazardous Waste Management Manual*. COMDTINST M16478.1B. Office of Engineering, Logistics and Development, Civil Engineering Division, Environmental Compliance and Restoration Branch. March 1992.
- USCG 1996 USCG. 1996. *NEPA Final Environmental Impact Statement (Volume I) for the U. S. Coast Guard Living Marine Resources (APLMR) Initiative*. Prepared by Battelle Ocean Sciences. October 31, 1996.
- USCG 2002a USCG. 2002. U.S. Coast Guard/G-IPA Web page “Homeland Security.” Available online: <http://www.uscg.mil/news/homeland_security/homeland_security.htm>. Accessed May 18, 2002.
- USCG 2002b USCG. 2002. “Coast Guard Missions.” Available online: <<http://www.uscg.mil>>. Accessed May 1, 2002.
- USCG 2002c USCG. 2002. *Final Environmental Assessment for Replacement of Pier 36 Berth Alpha*. Facilities Design and Construction Center (Pacific). March 2001.
- USCG 2002d USCG. 2002. *U.S. Coast Guard Final Programmatic Environmental Impact Statement for the Integrated Deepwater System Project*. March 22, 2002.
- USCG 2002e USCG. 2002. *Maritime Strategy for Homeland Security*, USCG Headquarters, December 2002.
- USCG 2003 USCG. 2003. *Draft Environmental Assessment of the El Paso Energy Bridge Gulf of Mexico L.L.C. Deepwater Port License Application*. September 2003.
- USCG 2004a USCG. 2004. “Maritime Safety and Security Teams (MSST).” Program Fact Sheet.
- USCG 2004b USCG. 2004. “Integrated Support Command (ISC) Honolulu.” Available online: <<http://www.uscg.mil/mlcpac/ischon/history.htm>>. Accessed July 22, 2004.
- USCG and MARAD 2003 USCG and Maritime Administration (MARAD). 2003. *Final Environmental Assessment for the Port Pelican LLC Deepwater Port License Application*. Docket Number USCG-2002-14134.
- USDOT 1980 U.S. Department of Transportation (USDOT). 1980. *Guidelines for Considering Noise in Land Use Planning and Control, Federal Interagency Committee on Urban Noise*. June 1980.
- USEPA 1978 U.S. Environmental Protection Agency (USEPA). 1978. *Protective Noise Levels: Condensed Version of EPA Levels Document*. EPA-550/9-79-100. Springfield, VA. National Technical Information Service.
- USEPA 1999 USEPA. 1999. USEPA – AirData Net Tier Report. Available online: <<http://www.epa.gov/air/data/nettier.html>>. Accessed on June 29, 2004.
- USEPA 2001 USEPA. 2001. *National Coastal Condition Report*. EPA-620/R-01/005. Washington, D.C.: Office of Research and Development/Office of Water. September 2001. Available online: <<http://www.epa.gov/owow/oceans/NCCR/index>>. Accessed August 2003.
- USFWS 2002 U.S. Fish and Wildlife Service (USFWS). 2002. “Leatherback Sea Turtle Fact Sheet (*Dermochelys coriacea*).” Available online: <<http://northflorida.fws.gov/SeaTurtles/Turtle%20FactSheets/leatherback-sea-turtle.htm>>. Accessed April 2003.
- USFWS 2004 U.S. Fish and Wildlife Service (USFWS). 2004. *Pacific Islands—Endangered Species*. Available online: <<http://pacificislands.gws.gov/wesa>>. Accessed July 22, 2004.

- USN 2001 U.S. Navy. (USN) 2001. *Final Overseas Environmental Impact Statement and Environmental Impact Statement for Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) Sonar*.
- USN 2002 USN. 2002. *Environmental Assessment for Installation and Operation of an Underwater Swimmer Detection System at Naval Base Coronado, California*. Commander, Navy Region Southwest, San Diego, CA.
- USN undated USN. Undated. "SURTASS LFA, Terminology." Available online: <http://www.surtass-lfa-eis.com/Terms/>. Accessed November 18, 2003.
- WPRFMC 2004 Western Pacific Regional Fishery Management Council (WPRFMC). 2004. *EFH/HAPC Designations for Fishery Management Units Covered Under the Bottomfish, Crustacean, Pelagic, Precious Corals and Coral Reef Ecosystem Fishery Management Plans*. Available online: <http://www.wpcouncil.org>. Accessed July 29, 2004.
- WRCC 2004 Western Regional Climate Center (WRCC). 2004. Available online: <http://www.wrcc.dri.edu/>. Accessed on June 30, 2004.
- Wilson 2005 Wilson, Robert CDR. 2005. Personal communication between Cdr. Robert Wilson (USCG, District 14) and Ms, Valerie Whalon (e²M) regarding the Protected Living Marine Resources Program in USCG District 14. March 9, 2005.

Appendix A

**INTERESTED PARTY LETTER, MAILING LIST,
AND NEWSPAPER ANNOUNCEMENT**

THIS PAGE INTENTIONALLY LEFT BLANK



16475

Dear Interested Party:

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the stand-up and operations of a Maritime Safety and Security Team (MSST) at Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations (Title 40 Code of Federal Regulations, Part 1500), Department of Transportation (DOT) Order 5610.1C and USCG policy (Commandant's Instruction M16475.1D, NEPA Implementing *Procedures and Policy for Considering Environmental Impacts*).

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts, including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, they also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST would consist of 77 active duty personnel, six new Response Boats-Small (RB-S), trailers, support trucks, and passenger vans. It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). Public input is important to the preparation of the EA. Your concerns and comments regarding the stand-up and operations of the MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by August 30, 2004 using only one of the following means:

By mail to:

Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

Or by fax to LT Ty Nagie at (202) 267-1171 (MSST)
Or by E-mail to tnagie@comdt.uscg.mil (MSST)

In choosing from these options, please give due regard to the continuing difficulties and delays associated with delivery of mail through the U.S. Postal Service to federal facilities. Written comments should include your name and address. The USCG will consider all comments received by the close of business on August 30, 2004 in the development and completion of the EA.

Sincerely,

S. D. AUSTIN
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations
& Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

FACT SHEET

Environmental Assessment (EA) of the Stand-Up and Operations of a Maritime Safety & Security Team (MSST) at Honolulu, Hawaii

Background

On November 25, 2002, the President signed into law the Homeland Security Act of 2002, P.L. 107-296, which created the new Department of Homeland Security (DHS). Under this legislation, the U.S. Coast Guard (USCG) was transferred from the Department of Transportation (DOT) to the DHS. In the wake of the events of September 11, 2001, emerging threats to the U.S. homeland have prompted an increased USCG focus on protecting domestic ports and the U.S. Marine Transportation System from warfare and terrorist threats.

To meet its increasing mission needs and challenges, the USCG is establishing Maritime Safety and Security Teams (MSSTs). MSSTs are specifically organized, trained, and equipped to counter current and emerging threats to our nation's seaports. The MSST would normally conduct operations in protected waters such as a harbor or port. Our seaports are a vital hub and central to our nation's defense and economic security. Considerable critical infrastructure, and thousands of commercial and military ships located in our seaports move over 90 percent of American's foreign trade and military cargo to overseas locations. The MSST would provide a dedicated force focused on mastering the advanced tactics, techniques, and procedures associated with port security and defense missions in ports that are also engaged in legitimate commercial and recreational activities. They would operate with, and be supported by, both military and civilian government organizations, commercial, and non-governmental entities. The MSST would be transportable via land transportation, USCG cutter, and USCG or other military aircraft worldwide. In summary, the MSST would:

- Augment a USCG Group or the Captain of the Port (COTP) as a force multiplier; enhancing port safety and security, and law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture for a limited duration. Transport all equipment and material via aircraft or ground or cutter transportation.
- Exercise security contingency plans in major ports.
- Detachments may also augment COTPs to conduct Port State Control Boardings and deploy for port familiarization and training.

The USCG is preparing an Environmental Assessment (EA) to comply with the National Environmental Policy Act (NEPA), and other related environmental laws, regulations, and Executive Orders.

Maritime Safety and Security Teams

The stand-up (establishment and operations) of the MSST at Honolulu, Hawaii, would consist of 77 active duty personnel (these would consist of mostly reassigned personnel although there may be some new personnel), onshore construction of boat storage, dive shop and administrative support facilities, six Response Boats-Small (RB-Ss), trailers, eight pickup trucks, and three passenger vans.

RB-Ss are 25-foot boats with outboard engines. They are highly maneuverable, capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and can carry three crewmembers, plus an additional seven passengers. The RB-Ss are equipped with radar, differential Global Positioning System (DGPS), and defensive weaponry. The MSST would also include boat trailers, four Ford F-350 pickup trucks, four Ford F-550 stakebed trucks, and three 15-passenger vans. When not in use, RB-Ss would be located on trailers at its on-shore support facility.

The MSST would be capable of operating 24 hours per day, seven days per week. However, it is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time.

The Region of Influence (ROI) for the MSST, presented in Attachment 1, is defined as the area where the MSST would typically conduct its operations. Under normal circumstances, the ROI is the Port of Honolulu, but the entire ROI encompasses the coastal waters surrounding the Hawaiian Islands and Guam. The MSST would launch the RB-Ss from a public boat ramp at Keehi Lagoon approximately 1 mile from the USCG Integrated Support Command (INTSUPCOM) Honolulu. The ROI is expected to be limited to existing harbor infrastructure and adjacent waters within the MSSTs primary operating area.

On-shore MSST Support Facilities

Each MSST would be located at or near an existing USCG Group in the vicinity of a regionally significant economic or military port. Co-locating the MSST with or near existing USCG Groups maximizes the use of existing infrastructure (i.e., electric, water and communications) and already assigned personnel. The criteria used to select these ports and the priority in which the MSST are stood up is based on a number of factors, including, but not limited to, the level of current protection, the amount and type of cargo and the concentration of critical Department of Defense facilities.

The Honolulu MSST would be permanently located at the USCG INTSUPCOM Honolulu, 400 Sand Island Parkway, Honolulu, HI 96819 (Attachment 2). Establishment of the MSST would involve the construction of a pre-engineered building (approximately 5000 square feet by 20 feet high) for boat storage and dive shop facilities, as well as the construction of a pre-engineered modular building (approximately 5000 sq ft, single story) for administrative support facilities.

Construction of the boat storage and dive shop facility would entail: site preparation; excavation and fill; concrete foundation; concrete floor slab; floor drains; gutters; roll-up doors; windows; louvers; lighting, electrical, communication/data, ventilation and air conditioning systems; interior office and toilet space; a utility areas for a breathing air compressor unit and SCUBA tanks; exterior security lighting and hose bibs; exterior utility connections for sewer, water, electrical and communication/data systems; and miscellaneous related work required for a complete and useable facility. The facility will provide a storage/maintenance/shop area for 3 trailered boats with drive through capability and a dive shop/drying area.

Construction of the administrative support facility would entail: hold-down anchors; landing and stairs; doors; windows; lighting, electrical, communication/data, ventilation and air conditioning systems; floor and wall covering; ceiling; painting; exterior utility connections for sewer, water, electrical and communication/data systems; and miscellaneous related work for a complete and useable facility. The facility will provide office rooms and areas, locker/shower/restroom areas, meeting/conference room, chart room, telephone/communications and utility room, and a kitchen area.

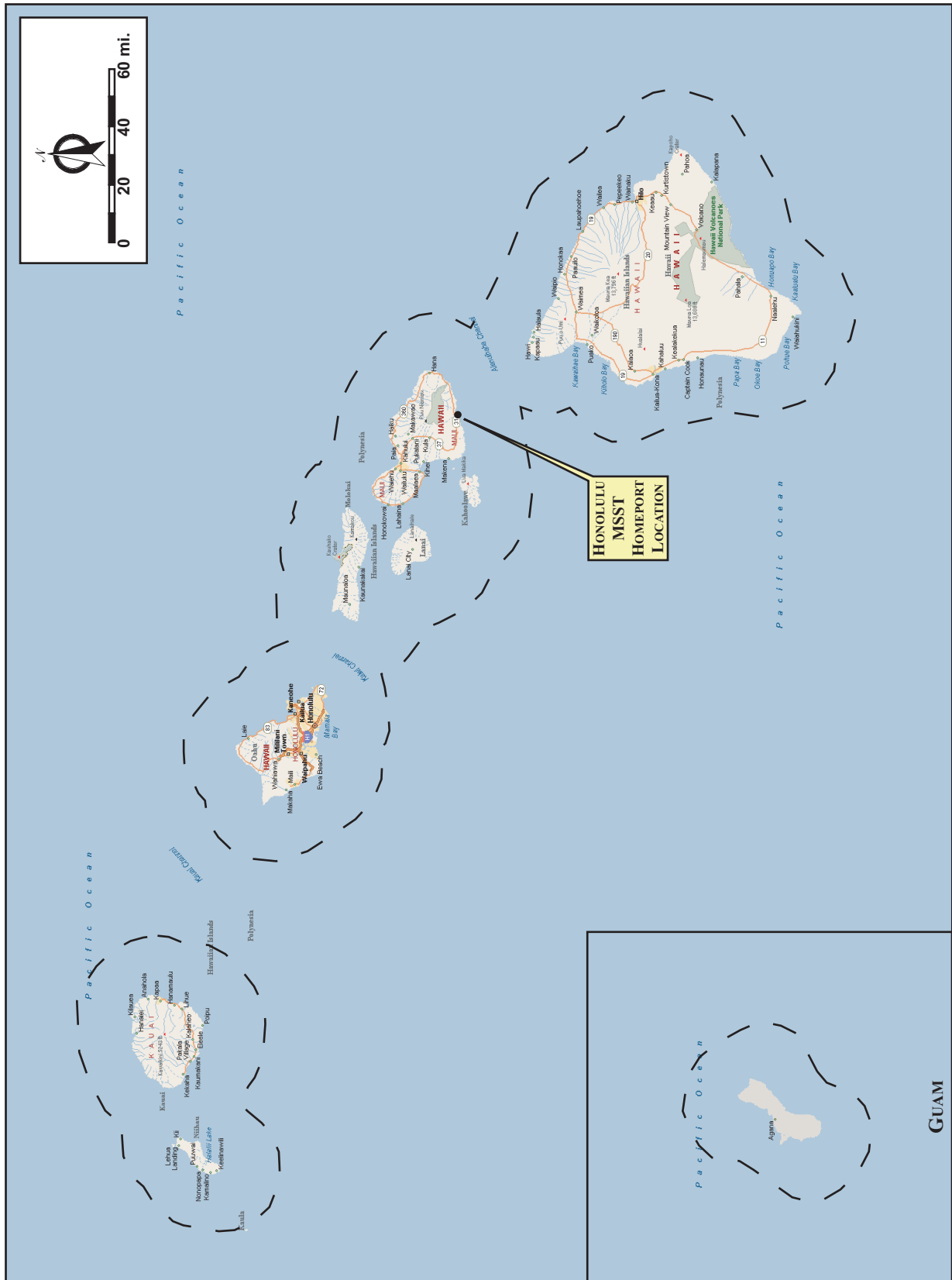


Figure 1. Honolulu MSST ROI

**MSST 91107 – HONOLULU, HAWAII
INTERESTED PARTY MAILING LIST**

Ms. Patricia Port
U.S. Department Of The Interior
Office of Environmental Policy and Compliance
Jackson Center One
1111 Jackson Street, Suite 520
Oakland, CA 94607

Mr. A. Forester Einarsen
NEPA Coordinator
U.S. Army Corps of Engineers
Office of Environmental Policy (CECW-AR-E)
20 Massachusetts Avenue
Washington, DC 203141000

Ms. Anne Norton Miller
Director
U.S. Environmental Protection Agency
Office of Federal Activities
Federal Liason Division, 2251-A
401 M Street, SW
Washington, DC 20460

Ms. Nancy Gloman
Director
U.S. Fish and Wildlife Service
Division of Endangered Species
4401 N. Fairfax Drive, Room 420
Arlington, VA 22203

Head, Environmental Planning & NEPA Compliance
Office of Chief of Naval Operations/N456
Dept. of the Navy, US Dept. of Defense
Crystal Plaza 5, Room 680
2211 S. Clark Place
Arlington, VA 22202-3735

Pacific Islands Contact Office
U.S. EPA, Region 9
P.O. Box 50003
Honolulu, HI 96850

Mr. Wayne Natri
Regional Administrator
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, CA, 94105

Dave Allen
Regional Director
U.S. Fish and Wildlife Service Region 1
911 NE 11th Ave
Portland, OR 97232

U.S. Fish and Wildlife Service
Pacific Islands Office
Habitat Conservation Division
300 Ala Moana Boulevard
Room 3-122, Box 50088
Honolulu, HI 96850

U.S. Fish and Wildlife Service
Pacific Islands Office
Endangered Species Division
300 Ala Moana Boulevard
Room 3-122, Box 50088
Honolulu, HI 96850

Mr. Jeff Griffin
Regional Director
Federal Emergency Management Agency Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607

Mr. Woodrow Goins, Jr.
Director, Pacific Area Office
Federal Emergency Management Agency
Building T-112 - Stop 120
Fort Shafter
Honolulu, HI 96858-5000

Sam Pooley
Acting Regional Administrator
National Marine Fisheries Service
Pacific Islands Regional Office
1601 Kapiolani Boulevard
Suite 1110
Honolulu, HI 96814

Ms. Marilyn Luipold
NEPA Coordinator
National Marine Fisheries Service
Pacific Islands Regional Office
1601 Kapiolani Boulevard
Suite 1110
Honolulu, HI 96814

LT Sal Fazio
USCG INTSUPCOM Honolulu
400 Sand Island Parkway
Honolulu, HI 96819

The Honorable Daniel Inouye
U.S. Senator
722 Hart Senate Office Building
Washington DC 20510

The Honorable Daniel Akaka
U.S. Senator
722 Hart Senate Office Building
Washington DC 20510

The Honorable Neil Abercrombie
Representative
1502 Longworth House Office Building
Washington, D.C. 20515

The Honorable Ed Case
Representative
128 Cannon HOB
Washington D.C. 20515

The Honorable Governor Linda Lingle
Executive Chambers
State Capitol
Honolulu, Hawai'i
96813

O'ahu State Historic Preservation District
P.O. Box 621
Honolulu, HI 96809

Mr. Peter T. Young
State Historic Preservation Officer
Department of Land and Natural Resources
601 Kamokila Boulevard
Room 555
Kapolei, HI 96707

Mr. John F. Peyton, Jr. Director
Department of Public Safety
919 Ala Moana Boulevard
Honolulu, HI 96814

State of Hawaii
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 220
Honolulu, HI 96813

State of Hawaii
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, HI 96813

State of Hawaii
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Room 300
Honolulu, Hawai'i 96813

State of Hawaii
Department of Land and Natural Resources Division
of Conservation and Resource Enforcement
1151 Punchbowl Street, Room 311
Honolulu, Hawai'i 96813

Micah Kane, Chairman
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, Hawaii 96805

State of Hawaii
Department of Land and Natural Resources
Kalanimoku Building, Room 130
1151 Punchbowl Street
Honolulu, HI 96813

Mayor Jeremy Harris
Honolulu Hale 530 S. King St.
Honolulu, HI 96813

Mr. Robin McCulloch
Chief Emergency Medical Services
City and County of Honolulu, Department of Emergency
Services
Emergency Medical Services Division
3375 Koapaka Street, Suite H-450
Honolulu, HI 96819

Mr. Ralph S. Goto
Ocean Safety Administrator, Ocean Safety and
Lifeguard Services
Ocean Safety and Lifeguard Services Division
City and County of Honolulu
3823 Leahi Avenue
Honolulu, HI 96815

Salvatore S. Lanzilotti, Director
Emergency Services Department
3375 Koapaka Street
Honolulu, HI 96819

Frank J. Doyle, PE, Director
Environmental Services Division
1000 Uluohia Street, Suite 308
Kapolei, HI 96707

Honolulu Fire Department
Attilio Leonardi, Chief
3375 Koapaka Street
Honolulu, HI 96819

Mr. Eric G. Crispin, AIA, Director
Planning and Permitting Department
650 S. King Street
Honolulu, HI 96813

Honolulu Police Department
Lee D. Donohue, Chief
801 S. Beretania Street
Honolulu, HI 96813

Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

Office of Hawaiian Affairs
711 Kapi'olani Blvd., Suite 500
Honolulu, HI 96813

VADM Terry M. Cross
Commander, Pacific Area
U.S. Coast Guard
Coast Guard Island
Alameda, CA 94501-5100

RADM Charles D. Wurster
Fourteenth Coast Guard District
300 Ala Moana Boulevard
Suite 9-108
Honolulu, HI 96850-4982

Mr. Lester Nakasata
Civil Engineering Unit (CEU) Honolulu
300 Ala Moana Blvd.
Honolulu, HI 96850-4982

June 30, 2004

PUBLIC NOTICE

Environmental Assessment for Maritime Safety Security Team (MSST) US Coast Guard

The United States Coast Guard (USCG) is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of a Maritime Safety and Security Team in Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. The MSST would allow the USCG to perform all of its missions, especially the newly acquired homeland security missions.

The EA will address the overall environmental impacts of establishing and operating the Honolulu MSST, including construction of pre-engineered buildings for boat storage, dive shop facilities, and administrative support, and the operation of 6 new Response Boats-Small (RB-S). The RB-Ss and personnel would be homeported at the USCG Integrated Support Command (INTSUPCOM) Honolulu, 400 Sand Island Parkway, Honolulu, HI 96819). The RB-S would operate in the Port of Honolulu and the coastal waters surrounding the Hawaiian Islands and Guam. Public input is important in the preparation of this EA. Your concerns and comments regarding the implementation of this MSST and the possible environmental impacts are important to the USCG. You are invited to submit comments by September 30, 2004 using only one of the following means:

- (1) By mail to: Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Capt S. D. Austin.
- (2) Or, by fax to LT Ty Nagie at (202) 267-1171
- (3) Or by E-mail to tnagie@comdt.uscg.mil.

In choosing among the above options for submitting your comments, please give due regard to the recent difficulties and delays associated with delivery of mail through the U.S. Postal Service to Federal facilities.

Written comments should include your name, address, and the specific port(s) to which the comment relates. The USCG will consider all comments received by September 30, 2004 in the development and completion of this EA.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix B

AGENCY CONSULTATION LETTERS

THIS PAGE INTENTIONALLY LEFT BLANK



Mr. John Nakagawa
Hawaii Department of Business, Economic Development and Tourism
Office of Planning
Coastal Zone Management Program
P.O. Box 2359
Honolulu, HI 96804

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Honolulu, HI

Dear Mr. Nakagawa:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 77 active duty personnel and MSST equipment in Honolulu, HI. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-S can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is the USCG's Consistency Determination under the Coastal Zone Management Act (CZMA) Section 307(c)(1) and Title 15 Code of Federal Regulations (CFR) Part 930, subpart C, for the Proposed Action. We believe that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Hawaii Coastal Zone Management Program. As stated above, we are currently preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on environmental

resources within the region of influence (ROI). Your concerns and comments regarding the implementation of the MSST and its possible impacts particularly in coastal zones are important to the USCG.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

(1) By mail to:

Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin

(2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)

(3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Consistency Determination
 (2) Supplemental Information
 (3) ROI map

USCG COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

This document provides the Hawaii Department of Business, Economic Development and Tourism, Office of Planning, Coastal Zone Management Program with the United States Coast Guard's (USCG) Consistency Determination under CZMA Section 307(c)(1) and 15 CFR Part 930, subpart C, for the standup and operation of the Maritime Safety and Security Team (MSST) in Honolulu, HI.

Necessary Data and Information:

1. The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

Enclosed for your review is a Fact Sheet on the EA (including a figure showing the location). The EA will address the overall environmental impacts of establishing and operating the MSST, including onshore facilities and infrastructure to accommodate 77 active duty personnel, MSST equipment, and the operation of six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any given period, although all six may be necessary under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with RADAR, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu, within 20 nautical miles of land; however, the MSST may be deployed to other ports and harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region.

2. Under Hawaii's Coastal Zone Management Statute (Hawaii Revised Statutes, Chapter 205A, Section 3), the Department of Business, Economic Development and Tourism, Office of Planning is authorized to "review federal programs, federal permits, federal licenses, and federal development proposals for consistency with the coastal zone management program." The EA will assess the impacts of the Proposed Action on coastal resources that are provided under Hawaii Revised Statutes, Chapter 205A, Section 2, Coastal Zone Management Program, Objectives and Policies. The draft EA will be provided to you once it is available.

3. However, at this time no significant impacts on coastal resources in Honolulu, HI are anticipated. Additionally, the Proposed Action is consistent with Subsection 205A-2-(b)-10 of Hawaii's Coastal Zone Management Statute, as its purpose is for public safety and it will

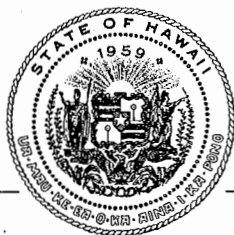
“promote the protection, use and development of coastal and marine resources.” Furthermore, in accordance with Subsection 205A-2-(c)-5(C), the Proposed Action will “direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments.”

Based upon the preceding information, data and analysis, the USCG finds that the standup and operation of an MSST in Honolulu, HI is consistent to the maximum extent practicable with the enforceable policies of the Hawaii Coastal Management Program.

Pursuant to 15 CFR Section 930.41, the Hawaii Coastal Management Program has sixty days from the receipt of this letter and accompanying information in which to concur with or object to this USCG’s Consistency Determination, or to request an extension (930.41(b)). The State’s concurrence will be presumed if the State’s response is not received by the USCG on the 60th day from receipt of this Determination. The State’s response should be sent to:

LT Ty Nagie
Headquarters, United States Coast Guard
Commandant (G-OPD)
2100 Second Street, SW
Washington, DC 20593-0001

Telephone: (202) 267-6064; fax (202) 267-1171



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
ACTING DEPUTY DIRECTOR
LAURA H. THIELEN
DIRECTOR
OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-10887

April 15, 2005

Lieutenant Commander J. L. Rodriguez
United States Coast Guard
Commandant (G-OPC)
2100 Second Street, SW
Washington, D.C. 20593-0001

Attention: Captain S. D. Austin

Dear Lieutenant Commander Rodriguez:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency
Concurrence for the Standup and Operation of the Maritime Safety and
Security Team (MSST) in Honolulu, Hawaii

This responds to your letter of March 30, 2005, submitting the environmental assessment for the standup and operation of the MSST in Honolulu, Hawaii, as fulfillment of the conditions of the CZM federal consistency objection, issued on November 5, 2004. We have completed our review and concur with your determination that the proposed activity is consistent to the maximum extent practicable with the enforceable policies of the Hawaii Coastal Zone Management Program.

CZM consistency concurrence is not an endorsement of the project nor does it convey approval with any other regulations administered by any State or County agency. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,

Laura H. Thielen
Director

c: Mr. David Kaiser, NOAA Office of Ocean & Coastal Resource Management
Ms. Masi Okasaki, NOAA Office of Ocean & Coastal Resource Management
✓ Mr. Ron Lamb, e2M, Inc.

THIS PAGE INTENTIONALLY LEFT BLANK



Mr. Jeff Povlina, Chief
Ecosystem and Oceanography Division
U.S. Department of Commerce
National Oceanic and Atmospheric Administration F/PIR
1601 Kapiolani Boulevard, Suite 1110
Honolulu, HI 96814

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Honolulu, HI

Dear Mr. Povlina:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 77 active duty personnel and MSST equipment in Honolulu, HI. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). We do not believe that the Proposed Action, the establishment and operations of the MSST in Honolulu, HI would have an adverse impact on essential fish habitat. As such, and in accordance with Section 305(b) of the Magnuson-Stevens Act, as amended, we

do not believe an EFH consultation is required at this time. As stated above, we are currently preparing an EA, and we intend to fully assess the potential impacts associated with the Proposed Action on EFH within the region of influence (ROI). Your concerns and comments regarding the implementation of the MSST and its possible impacts on EFH are important to the USCG.

We will also consult with the U.S. Fish and Wildlife Service and NOAA Fisheries Protected Resources Division regarding the presence of threatened and endangered species under their respective jurisdictions.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

- (1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
- (2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
- (3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
 (2) ROI map



Mr. Bud Antonellis
Chief of the Protected Resources Division
U.S. Department of Commerce
National Oceanic and Atmospheric Administration F/PIR
1601 Kapiolani Boulevard, Suite 1110
Honolulu, HI 96814

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team Honolulu, HI

Dear Mr. Antonellis:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 77 active duty personnel and MSST equipment in Honolulu, HI. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with NOAA Fisheries regarding the proposed establishment and operation of the MSST in Honolulu, HI. We intend to have the EA stand as our Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting a list of species of

concern that occur within the ROI and a list of any additional concerns that NOAA Fisheries may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with the U.S. Fish and Wildlife Service regarding the presence of threatened and endangered species under their jurisdiction and NOAA Fisheries' Habitat Conservation Division regarding essential fish habitat within the ROI.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

- (1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
- (2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
- (3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map



16475

Mr. Timothy Johns
State Historic Preservation Officer
Hawaii Department of Lands and Natural Resources
P.O. Box 621
Honolulu, HI 96809

**RE: Finding of No Historic Properties Affected for Establishing a US Coast Guard
Maritime Safety and Security Team (MSST) in Honolulu, HI**

Dear Mr. Johns:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) operating out of Honolulu, Hawaii. This undertaking is subject to Section 106 of the National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq.*). This letter is to fulfill the USCG's obligation under Section 106 by providing the information required for Title 36 Code of Federal Regulations (CFR) Part 800.11 to make a determination under 800.4(d)(1), *Finding of No Historic Properties Affected*.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 77 active duty personnel and MSST equipment in Honolulu, HI. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts, including terrorism. While the MSST's operations would closely parallel USCG traditional port security operations, they also would provide complementary, non-redundant capabilities that would be able to close significant readiness gaps in our nation's strategic ports. RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). The Proposed Action is not expected to affect any historic properties.

Please provide comments on our determination of no historic properties affected. If your comment indicates a difference of opinion on this determination, please feel free to contact Ms.

Kebby Kelley at 202-267-6034 in order to continue consultation and hopefully resolve the difference of opinion. Please provide your comments within 15 days from the date your office receives this letter.

Thank you in advance.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map



Ms. Wendi Weber, Chief
Division of Endangered Species
U.S. Fish and Wildlife Service
Pacific Region
911 N.E. 11th Avenue
Portland, OR 97232-4181

Subject: Environmental Assessment of the Establishment and Operation of a Maritime Safety and Security Team in Honolulu, HI

Dear Ms. Weber:

The U.S. Coast Guard (USCG) is preparing an Environmental Assessment (EA) for the establishment and operation of a Maritime Safety and Security Team (MSST) Honolulu, HI. Preparation of the EA is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations, Title 40 Code of Federal Regulations, Part 1500. The MSST is being established to increase the USCG's ability to protect critical domestic ports and the U.S. Marine Transportation System from illegal activity, sabotage, and other subversive acts including terrorism. While the MSST's operations will closely parallel USCG traditional port security operations, it also will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The EA will address the overall environmental impacts of establishing and operating the MSST including the implementation of shore side infrastructure support to accommodate 77 active duty personnel and MSST equipment in Honolulu, HI. MSST equipment would include six new Response Boats-Small (RB-S). It is anticipated that the RB-Ss would operate 12 hours per day, 7 days per week and that there would be two to three boats operating at any one time, although all six boats may operate under specific threat scenarios.

RB-Ss are 25-foot boats with outboard engines. The RB-Ss can carry 3 crewmembers plus up to 7 passengers. They are equipped with radar, depth sounder, differential Global Positioning System, and defensive weaponry. The MSST is expected to operate in the Port of Honolulu (see enclosure); however, the MSST may be deployed to other ports or harbors throughout the Hawaiian Islands and Guam to provide additional protection for specific targets throughout the region. Operations associated with the MSST are similar to on-going USCG operations.

Enclosed for your review is a brief description of the Proposed Action (including a figure showing the location). In accordance with Section 7 of the Endangered Species Act, as amended, we seek to informally consult with the U.S. Fish and Wildlife Service regarding the proposed establishment and operation of the MSST in Honolulu, HI. We intend to have the EA stand as our Biological Assessment (BA) for this proposal. In order to fully assess the potential impacts associated with the Proposed Action on protected resources, we are requesting a list of endangered, threatened or candidate species or their habitat that occur within the ROI, and any

additional concerns that the U.S. Fish and Wildlife Service may have regarding the potential impacts of the Proposed Action on federally listed species or other marine mammals.

We will also consult with National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), Protected Resources Division regarding the presence of species of concern and a list of any additional concerns under their jurisdiction and NOAA Fisheries, Habitat Conservation Division regarding essential fish habitat within the ROI.

We look forward to working with your office on this project. Please send any comments/correspondence to the USCG through one of the following methods:

- (1) By mail to:
Commandant (G-OT)
2100 Second Street, SW
Washington, DC 20593
Attn: Captain S. D. Austin
- (2) Or, by fax to LT Ty Nagie at (202) 267-1171 (MSST)
- (3) Or by E-mail to tnagie@comdt.uscg.mil (MSST)

Thank you for your assistance. If you have questions about the proposed establishment of the MSST, please contact LT Ty Nagie at (202) 267-1162, or about the EA, please contact Ms. Kebby Kelley at (202) 267-6034.

Sincerely,

S. D. Austin
Captain, U.S. Coast Guard
Director, Maritime Homeland Security Operations & Tactics

Enclosures: (1) Supplemental Information
(2) ROI map

cc w/enclosures: Ken Hollingshead

Appendix C

ENVIRONMENTAL REGULATIONS, LAWS, AND EXECUTIVE ORDERS

THIS PAGE INTENTIONALLY LEFT BLANK

Table C-1. Applicable Regulations, Laws, and Executive Orders

Executive Orders	
<i>Executive Order (EO) 11593, Protection and Enhancement of the Cultural Environment</i>	All Federal agencies are required to locate, identify, and record all cultural and natural resources. Cultural resources include sites of archaeological, historical, or architectural significance. Natural resources include the presence of endangered species, critical habitat, and areas of special biological significance.
<i>EO 11990, Protection of Wetlands</i>	Requires Federal agencies to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative, and all practicable measures to minimize harm to wetlands has been implemented.
<i>EO 11988, Floodplain Management</i>	Provides direction regarding actions of Federal agencies in floodplains, and requires permits from state and Federal review agencies for any construction within a 100-year floodplain.
<i>EO 12372, Intergovernmental Review of Federal Programs (as amended by EO 12416)</i>	Requires Federal agencies to consult with state and local governments when proposed Federal financial assistance or direct Federal development has an impact on interstate metropolitan urban centers or other interstate areas.
<i>EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements</i>	Requires Federal agencies to plan for chemical emergencies. Facilities that store, use, or release certain chemicals are subject to various reporting requirements. Reported information is made available to the public.
<i>EO 12898, Environmental Justice</i>	Requires certain Federal agencies, including the Department of Defense (DoD), to the greatest extent practicable permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse health or environmental effects on minority and low-income populations.
<i>EO 13007, Indian Sacred Sites</i>	Requires Federal agencies to accommodate access to, and ceremonial use of, sacred sites by practitioners and avoid adversely affecting the physical integrity of such sites.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
<i>EO 13045, Protection of Children from Environmental Health and Safety Risks</i>	Makes it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children. It also directs agencies to ensure that policies, programs, activities, and standards address such risks if identified.
<i>EO 13158, Marine Protected Areas</i>	Requires Federal agencies whose actions affect the natural and cultural resources protected by a marine protected area (MPA) to identify such actions, and, to the extent practicable and permitted by law, to avoid harming the natural and cultural resources that are protected by an MPA.
<i>EO 13175, Consultation and Coordination with Indian Tribal Governments</i>	Requires Federal agencies to have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.
<i>EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds</i>	Requires Federal agencies to take steps to protect migratory birds, including restoring and enhancing habitat, preventing or abating pollution affecting birds, and incorporating migratory bird conservation into agency planning processes whenever possible.
<i>American Indian Religious Freedom Act, 42 United States Code (U.S.C.) 1996, Public Law (P.L.) 95-341</i>	Protects and preserves the rights of American Indians, Eskimos, Aleuts, and Native Hawaiians to exercise the traditional religions. These rights include, but are not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and tradition rites.
<i>Antiquities Act of 1906, 16 U.S.C. 431-433, P.L. 59-209</i>	Provides for the protection of historic and prehistoric ruins and objects of antiquity on lands owned or controlled by the Federal government. Authorizes scientific investigation of antiquities on Federal lands. Authorizes the establishment of national landmarks.
<i>Archaeological and Historical Preservation Act, 16 U.S.C. 469</i>	Protects and preserves historical and archaeological data. Requires Federal agencies to identify and recover data from archaeological sites threatened by their actions.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
<i>Archaeological Resources Protection Act of 1979, 16 U.S.C. 470 et seq., P.L. 96-95</i>	Enacted to preserve and protect resources and sites on Federal and Indian lands. Fosters cooperation between governmental authorities, professionals, and the public. Prohibits the removal, sale, receipt, and interstate transportation of archaeological resources obtained illegally from public or Indian lands.
<i>Clean Air Act, 42 U.S.C. 7401-7671q, July 14, 1955, as amended</i>	This Act, as amended, is known as the Clean Air Act (CAA) of 1970. The amendments made in 1970 established the core of the clean air program. The primary objective is to establish Federal standards for air pollutants. It is designed to improve air quality in areas of the country, which do not meet Federal standards and to prevent significant deterioration in areas where air quality exceeds those standards.
<i>Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464, P.L. 92-583</i>	Establishes a policy to preserve, protect, develop, and, where possible, restore and enhance the resources of the Nation's coastal zone. Encourages and assists states through the development and implementation of coastal zone management programs.
<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9675, P.L. 96-510, amended by Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499</i>	Also known as "Superfund," provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous substances disposal sites. Also established a fund financed by hazardous waste generators to support cleanup and response actions.
<i>Department of Transportation Act, Section 4(f)</i>	Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks and wildlife areas when approving transportation programs or projects.
<i>Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., P.L. 93-205</i>	Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Under this law, no Federal action is allowed to jeopardize the continued existence of an endangered or threatened species. The Endangered Species Act also requires consultation with USFWS and the National Marine Fisheries Service (NMFS) and the preparation of a biological assessment when such species are present in an area that is affected by government activities.
<i>Federal Property and Administrative Services Act of 1949</i>	Guides the process for transferring government property.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
<i>Federal Records Act</i>	Requires Federal agencies to preserve Federal records of potential historic value.
<i>Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387</i>	The Clean Water Act is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Primary authority for the implementation and enforcement rests with the U.S. Environmental Protection Agency (EPA).
<i>Fish and Wildlife Conservation Act Coordination Act, 16 U.S.C. 661 et seq., P.L. Chapter 55</i>	The purpose of this Act is to ensure that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs.
<i>Historic Sites Act of 1935, 16 U.S.C. 461-467, P.L. Chapter 593</i>	Establishes a national policy to preserve for public use, historic sites, buildings, and objects of national significance.
<i>Historical and Archaeological Data-Preservation, 16 U.S.C. 469 et seq., P.L. 93-291</i>	Protects and preserves historical and archaeological data caused as a result of Federal construction projects. Directs Federal agencies to notify the Secretary of the Interior when the construction project may cause irreparable loss or destruction of significant resources or data. Provides a mechanism through which resources can be salvaged from a construction site.
<i>Lacey Act of 1900, 16 U.S.C. 701, 702; 31 Stat. 187, 32 Stat. 285</i>	Under this law, it is unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants taken, possessed, transported, or sold: 1) in violation of U.S. or Indian law, or 2) in interstate or foreign commerce involving any fish, wildlife, or plants taken, possessed, or sold in violation of state or foreign law.
<i>Magnuson-Stevens Fishery Conservation and Management Act, as amended through October 11, 1996, 16 U.S.C. 1801 et seq., P.L. 94-265</i>	Establishes regional fisheries councils that set fishing quotas and restrictions in U.S. waters. Federal agencies must consult with NMFS on all actions, authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH)
<i>Marine Mammal Protection Act of 1972, 16 U.S.C. 1361 et seq., 1401-1407, 1538, 4107</i>	Establishes a moratorium on the taking and importation of marine mammals including harassment, hunting, capturing, collecting, or killing or attempting the above actions. Requires permits for taking marine mammals. Requires consultations with USFWS and NMFS if impacts to marine mammals are possible.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
<i>Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445, P.L. 92-532</i>	Regulates the dumping of materials into ocean waters. Provides for a permitting process to control the ocean dumping of dredged materials. Establishes the marine sanctuaries program.
<i>Migratory Bird Treaty Act 16 U.S.C. 703-712</i>	The Migratory Bird Treaty Act implements various treaties and is for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.
<i>National Environmental Policy Act of 1969 (NEPA), as amended; P.L. 91-190, 42 U.S.C. 4321 et seq.</i>	Requires Federal agencies to utilize a systematic approach when assessing environmental impacts of government activities. NEPA proposes an interdisciplinary approach in a decision-making process designed to identify unacceptable or unnecessary impacts to the environment.
<i>National Historic Preservation Act, 16 U.S.C. 470 et seq.</i>	Requires Federal agencies to take account of the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible or listed for inclusion in the NRHP. Provides for the nomination, identification (through listing on the National Register), and protection of historical and cultural properties of significance.
<i>National Invasive Species Act of 1996, 16 U.S.C. 4701 et seq., P.L. 104-332</i>	Reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention Control Act of 1990. Establishes ballast water information and requires guidelines to be issued for the Great Lakes.
<i>Noise Control Act of 1972, 42 U.S.C. 4901-4918, P.L. 92-574</i>	Establishes a national policy to promote an environment free from noise that jeopardizes their health and welfare. Authorizes the establishment of Federal noise emissions standards and provides information to the public.
<i>Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701 et seq., P.L. 101-646</i>	Establishes aquatic nuisance species.
<i>Northwest Atlantic Fisheries Convention Act</i>	Implements provisions of international conventions and establishes regulatory framework.
<i>Occupational Safety and Health Act</i>	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
<i>Port and Waterways Safety Act</i>	Sets vessel operating and towing safety requirements and sets out enforcement provisions.

Table C-1. Applicable Regulations, Laws, and Executive Orders (continued)

Executive Orders	
<i>Resource Conservation and Recovery Act, 42 U.S.C. 6901, P.L. 94-580</i>	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks. Federal agencies must comply with waste management requirements.

Appendix D

USCG PROTECTED LIVING MARINE RESOURCES GUIDANCE

THIS PAGE INTENTIONALLY LEFT BLANK

U.S. Department
of Transportation

United States
Coast Guard



Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-OPL-4
Phone: (202) 267-2041
FAX: (202) 267-4082

16214

SEP 28 2000

LETTER OF PROMULGATION

From: Commandant

To: Distribution

1. Protecting our nation's natural resources is one of the Coast Guard's five strategic goals. Along with Maritime Safety, Maritime Security, Maritime Mobility, and National Defense, Protection of Natural Resources is one of the basic reasons the taxpayers fund the Coast Guard each year. Hence, it is one of the outcomes to which our entire organizational effort – programs, policies, and assets – should be dedicated. In our Strategic Plan 1999, I defined the Protection of Natural Resources Strategic Goals as "the elimination of environmental damage and natural resource degradation associated with all maritime activities." A vital aspect of achieving this goal is helping the nation recover and maintain healthy populations of marine protected species. OCEAN STEWARD is our strategic plan for making that happen.

2. OCEAN STEWARD provides the emphasis operational commanders, training commands, and administrative staffs need to prioritize and execute this increasingly important mission. The core idea behind OCEAN STEWARD is the premise that all of us, as members of the Coast Guard, have a responsibility to be good stewards of the ocean. If we adhere to this premise as individuals, then the Coast Guard, as an organization, will make great progress toward achieving OCEAN STEWARD's objectives.

3. As we enter the 21st century, our nation is becoming increasingly concerned about the ocean and the state of its living marine resources. Coast Guard leadership in protecting marine species, however, is nothing new; it dates back as far as the Fur Seal Act of 1897. The Coast Guard remains committed to continuing that tradition of leadership, and OCEAN STEWARD is your guide in this important endeavor.

A handwritten signature in black ink, appearing to read "J. Loy", is written over the printed name "JAMES M. LOY".

JAMES M. LOY

Encl: (1) OCEAN STEWARD, Protected Living Marine Resources Strategic Plan

Dist: CG LANTAREA (A, Am, Ao), CG PACAREA (P, Pm, Po), CG DISTRICTS (d, m, o), CG ACADEMY, CG INSTITUTE, CG TRACEN Yorktown, CG TRACEN Cape May, CG TRACEN Petaluma, CG PACAREA TRATEAM, CG RFTC Cape Cod MA, CG RFTC Charleston SC, CG RFTC New Orleans LA, CG RFTC Kodiak AK, CG R&DC

COMMANDANT'S PREAMBLE

The Coast Guard's Strategic Plan 1999 states the nation's waterways and their ecosystems are vital to our economy and health. This is why we made the protection of natural resources, specifically the elimination of environmental damage and natural resource degradation associated with maritime activities, one of our five strategic goals, and made enforcing the federal regulations that result in all living marine resources achieving healthy, sustainable populations one of our performance goals. We already have formal plans in place to help us achieve some of these goals, particularly in the areas of pollution response and fisheries law enforcement. However, if we are to fully achieve our protection of natural resources strategic goal, we must become more involved in the efforts to recover and maintain our nation's marine protected species and the habitats on which they depend.

In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. Evidence of this includes:

- Increasing fishery management measures designed to reduce bycatch of non-targeted species, such as turtle excluder devices (TEDs), fixed-net pingers, and bycatch reduction devices (BRDs).
- Rising conflicts between advocates for species protection and resource users, such as those existing between Steller sea lion protection advocates and Bering Sea/Gulf of Alaska pollock fishers, and between northern right whale protection advocates and New England fixed gear fishers.
- The recent formation of federal and state government task forces to protect coral reefs, northern right whales, Pacific salmon, and other endangered species.
- National Marine Fisheries Service Report to Congress (1999) concluding, of the 230 stocks for which the status can be determined, 98 are overfished and five are approaching overfished - an increase from 86 overfished stocks in 1997 and 90 in 1998.
- Fisheries closures and restrictions in the Gulf of Maine and the West Coast that have had a devastating economic impact on groundfish fleets.
- Increasing litigation against government agencies (including the Coast Guard) by organizations trying to influence marine resource management policy.
- Funding for the Lands Legacy Initiative, which included \$27 million to protect ocean and coastal resources in FY 2000 and a request for \$266 million for FY 2001.
- The recent signing, by President Clinton, of Executive Order 13158, strengthening and expanding the nation's system of marine protected areas (MPAs).

The Coast Guard already has effective, coordinated strategies for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. However, our approach to marine protected species (MPS), specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, or similar regulations or executive orders, is less clearly defined. Problems resulting from this include:

- Initial delay in establishing a coordinated plan for accomplishing assigned Atlantic Protected Living Marine Resources Initiative (APLMRI) tasks.

- Difficulty in addressing potential conflicts between high-speed craft and marine protected species in New England.
- Low funding priority for funding assessments to address the impact Coast Guard operations have on marine protected species throughout the Pacific Area.
- Inconsistency in handling cross-directorate MPS issues such as working with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on marine mammal protection initiatives and responding to the Coral Reef Initiative (Executive Order 13089).
- Working level frustration with lack of guidance for dealing with endangered species lawsuits, creation of Memorandums of Understanding (MOU) with NMFS, potential regulation of high-speed craft and whale watch industry vessels, and other MPS issues.

A robust ocean environment is essential to our nation's prosperity, and healthy populations of marine protected species are essential to maintaining a robust ocean environment. Just as protecting our water and air became top national priorities during the last decades of the 20th century, protecting our oceans is becoming a top priority of the 21st century. In the coming years, the nation will look for leaders to exercise responsible stewardship of our ocean resources. The Coast Guard is stepping forward and embracing this role, it is one of the most important roles we will ever undertake.

OCEAN STEWARD PURPOSE

The purpose of Ocean Steward is to help the Coast Guard achieve its strategic goal Protection of Natural Resources and its performance goal of enforcing federal regulations that result in all living marine resources achieving healthy, sustainable populations. Ocean Steward provides a clearly defined strategy for our role in helping the nation recover and maintain healthy populations of marine protected species; it captures the things we are already doing and provides a comprehensive list of objectives we can achieve if we are provided the necessary resources. Ocean Steward complements our fisheries enforcement strategic plan, Ocean Guardian. Together, Ocean Steward and Ocean Guardian provide a roadmap for the Coast Guard's efforts in ensuring our nation's waterways and their ecosystems remain productive by protecting all our nation's living marine resources from degradation.

COAST GUARD STRATEGIC GOAL: PROTECTION OF NATURAL RESOURCES

Eliminate environmental damage and natural resource degradation associated with all maritime activities

The nation's waterways and their ecosystems are vital to our economy and health. If the United States is to enjoy a rich, diverse and sustainable ocean environment, then we must halt the degradation of our ocean's natural resources associated with maritime activities. This includes ensuring our country's marine protected species are provided the protection necessary to help their populations recover to healthy, sustainable levels. Providing adequate protection will require the United States to enact and enforce a wide range of regulations to govern marine resource management and use. Ocean Steward will enable the Coast Guard, as the nation's primary at sea law enforcement agency, to develop and enforce those regulations necessary to help recover and maintain our country's marine protected species. Moreover, Ocean Steward will ensure the Coast Guard is viewed as a leader in regional, national and international efforts to protect the nation's marine ecosystems.

OCEAN STEWARD VISION STATEMENT

The Coast Guard will be a leader in the effort to recover and maintain our nation's marine protected species

OCEAN STEWARD MISSION STATEMENT

We will enforce and comply with marine protected species regulations, work with other agencies and organizations to develop appropriate regulations for marine protected species recovery, and publicize our efforts to gain the support and resources necessary to fully implement Ocean Steward

The Coast Guard will implement a formal MPS strategy, Ocean Steward, with a clear, focused vision. We will educate and train our members to make certain every individual understands that stewardship of the ocean environment is a fundamental part of their duty. We will use existing enforcement authorities, and seek new authorities as necessary, to help reduce the risks of extinction and recover marine protected species populations. We will conduct our own operations so as to minimize our impact on marine protected species. We will assess the impact on marine protected species when developing both internal and external regulations and policies. We will work closely with other federal, state and local governments, as well as environmental and research organizations, to carry out the nation's MPS policies. We will inform the public of both the importance of the mission and the ways in which they can help lessen the impact of human activities on marine protected species. We will widely publicize our strategy and results to inform policymakers and the public of the value of our MPS efforts.

GUIDING PRINCIPLE

We are Stewards of the Ocean

The guiding principle behind Ocean Steward is instilling in every member of the Coast Guard the belief that each individual is a steward of the ocean. This concept must be promoted throughout the entire organization. Our training commands – Training Center Cape May, the Coast Guard Academy, Training Center Yorktown, Training Center Petaluma, and the Regional Fisheries Training Centers – should produce graduates who understand and believe preservation of marine protected species is a fundamental Coast Guard responsibility. Our boarding officers and marine inspectors should know, and want to know, what marine protected species exist in their AORs, the regulations that exist to protect them, and how his or her actions can promote species recovery. Our operations and marine safety units should know, and want to know, the concerns of federal, state and local officials, and should work cooperatively with them. Our stations, cutters and marine safety offices should distribute appropriate educational literature. At every opportunity Coast Guard personnel should let the public know we are on watch protecting their oceans and waterways, and inform them of what they can do to help eliminate the degradation of natural resources associated with maritime activities. Our deck watch officers, aircrews and coxswains should be able to recognize the marine protected species they are likely to

encounter and report sightings to interested organizations. Our staff officers and port operations personnel should ensure, and want to ensure, recovery of marine protected species is taken into account when making policy decisions, and they should prioritize the workloads of their personnel to reflect this emphasis. In short, every member of the Coast Guard must think of himself or herself as a steward of the ocean. Committing to that, both organizationally and individually, we will enable us to reach our overarching Protection of Natural Resources strategic goal.

OCEAN STEWARD STRATEGIES

Raise the Profile of the MPS Mission: We will raise the profile of the MPS mission to the status of missions such as maritime drug interdiction, marine pollution prevention and fisheries enforcement.

Obtain Necessary Resources and Authorities: We will prioritize existing resources, use existing authorities, and seek additional resources and authorities as necessary to implement Ocean Steward.

Partner with Other Agencies: We will work closely with other agencies and organizations involved in the preservation and recovery of marine protected species to eliminate redundancy, and provide a clear link between enforcement and management.

Publicize Our Efforts: We will stress the importance of the Coast Guard's role as part of a comprehensive management scheme and highlight our successful efforts to the public.

Each of these strategies contains sets of near, mid, and long-term objectives. Near-term objectives are those that can be achieved without a major reallocation of resources. Mid-term objectives require addition resources or a significant reallocation of resources. Long-term objectives are those objectives that will require institutional changes such as seeking additional authorities or creation of program offices.

STRATEGY: RAISE THE PROFILE OF THE MPS MISSION

1. DISCUSSION

If the Coast Guard is to be truly committed to protecting the ocean and its resources, then, in the eyes of our own people, recovery of marine protected species must be just as important as traditional missions such as maritime drug interdiction, marine pollution prevention, and fisheries enforcement. We must go beyond development of single initiatives in response to pressure or crisis. We should approach MPS issues with the same proactive, integrated, long-term strategy we use for addressing counterdrug operations, fisheries law enforcement, and commercial vessel safety. Every member of the Coast Guard must know it is part of our job to help recover and maintain our marine

protected species, just as they know it is our job to rescue those in distress. If we understand this concept individually, we will certainly convey that image organizationally.

2. KEY OBJECTIVES

a. Near Term

1) Incorporate MPS issues into CG performance planning.	G-CCS
2) Develop Area and District MPS operating and enforcement guidance.	G-O/Areas/ Districts
3) Emphasize area specific MPS issues in the curriculum of all 5 Regional Fisheries Training Centers (RFTCs).	G-O/G-W/ Areas/RFTCs
4) Identify ways to increase CG Auxiliary participation in MPS mission.	G-O
5) Identify ways to increase focus on MPS issues in Sea Partners program.	G-M
6) Measure the effectiveness of current MPS initiatives such as compliance with the Mandatory Ship Reporting System (MSR) and manatee speed zone regulations.	G-O
7) Designate MPS points of contact (POC) at HQ/Areas/Districts, and create a CG network for information flow on MPS issues.	G-O/Areas/ Districts

b. Mid Term

1) Increase Endangered Species Act/Marine Mammal Protection Act enforcement pulse ops during critical seasons.	G-O/Areas/ Districts
2) Ensure current and potential MPS missions (patrol of remote coral reefs, removal of derelict fishing gear, assisting in disentanglement of whales, etc.) are included in Deepwater decision making process.	G-O
3) Increase CG participation in environmental cleanup events such as the Center for Marine Conservation's annual International Coastal Clean Up.	G-M/G-O
4) Incorporate MPS mission into curriculum of all entry-level and accession training programs (e.g., Officer Candidate School, the Academy, Cape May, and Civilian Indoctrination).	G-W
5) Incorporate MPS issues into International Maritime Officers Course and Mobile Training Teams.	G-CI
6) Designate MPS POC at appropriate CG units.	Districts
7) Include MPS guidance in Maritime Law Enforcement Manual updates.	G-O
8) Include MPS guidance in Marine Safety Manual updates.	G-M

c. Long Term

1) Create HQ cross-directorate MPS office.	G-M/G-O
2) Incorporate MPS questions into Servicewide Examinations.	G-W
3) Add MPS material to appropriate A School curricula (e.g., BM, QM, and MST).	G-W
4) Add MPS material to appropriate C School curricula (e.g., Boarding Officer Course, Boarding Team Member Course, and Marine Safety Petty Officer Course).	G-W

STRATEGY: **OBTAIN NECESSARY RESOURCES AND AUTHORITIES**

1. DISCUSSION

As national sentiment builds for increasing the protection of our oceans, the Coast Guard should be at the top of the list of agencies that the public demands to be adequately funded. We should reinforce this by documenting our need for, and requesting, the additional resources required to meet the increasing enforcement and regulatory demands in the oceans environment. The public must view the Coast Guard as a leader in preserving our oceans and their protected species. When it is the right thing to do, we should seek to expand our enforcement and regulatory roles, and not shy away for fear of acquiring additional mandates or becoming the target of legal action. If we can be leaders in maritime search and rescue, drug interdiction and pollution prevention, then we can also become leaders in the recovery of marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Request funding for implementation of Ocean Steward through annual budgeting and resource allocation processes.	G-I/G-M/ G-O/G-
2) Include resource hour requests for implementation of Ocean Steward in input to the annual Operational Guidance letter.	G-O/Areas
3) Assess the need for more enforcement authority to protect resources of various marine protected areas and sanctuaries.	G-L/G-M/ G-O
4) Monitor and evaluate effectiveness of the Mandatory Ship Reporting System (MSR).	G-M/G-O
5) Monitor R&D efforts to develop new technologies for marine mammal detection and avoidance in order to plan for possible acquisition of feasible technologies.	G-O/G-S

b. Mid Term

1) Develop better measures of effectiveness for MPS enforcement efforts.	G-O
2) Support Resource Proposals that address requirements for MPS activities.	G-CCS
3) Allocate resources required to implement Ocean Steward in the annual Operational Guidance letter.	G-O
4) Propose statutory changes and new regulations to improve CG ability to support the nation's MPS objectives.	G-L/G-M/ G-O

c. Long term

1) Consider seeking expanded authority for regulation of vessels in order to protect marine protected species.	G-L/G-M/ G-O
--	-----------------

STRATEGY: **PARTNER WITH OTHER AGENCIES AND ORGANIZATIONS**

1. DISCUSSION

Our leadership should seek opportunities to help recover and maintain the nation's marine protected species (MPS) by working more closely with the National Oceanic and Atmospheric Administration (NOAA), the National Marine Fisheries Service, the National Marine Sanctuaries (NMS), the U.S. Fish and Wildlife Service, the Department of State, the Department of Defense, state and local governments, non-governmental organizations, industry, research institutions, and international organizations. We should partner with concerned agencies and organizations to ensure MPS issues are considered whenever agencies propose new regulations. We should work closely with NOAA, NMFS, the NMS, state and local governments, and international organizations to ensure we are doing all we can to provide enforcement for various marine protected areas, and to assist them with their education and outreach initiatives. We should reach out to other management agencies and research institutions to assist in providing the data needed to answer important questions about marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Maximize assistance to NMFS in investigation and prosecution of protected MPS incidents.	G-O
2) Work closely with NMFS on MPS issues such as fishing gear conflicts, vessel traffic management, and bycatch reduction.	G-M/G-O
3) Work closely with the Navy to monitor research and development efforts to use acoustics for tracking and avoiding endangered whales.	G-O/G-C
4) Use MOUs, as appropriate, to define relations with the National Marine Sanctuaries and other marine protected areas.	G-L/G-M/ G-O
5) Engage other agencies in a discussion of remote marine protected areas.	G-M/G-O
6) Increase our role in federal and international recovery teams and task forces (e.g., the Coral Reef Task Force, the Manatee Recovery Team, and Right Whale Recovery Plan Implementation Teams).	G-M/G-O
7) Emphasize ship-riding opportunities for NMFS and NMS personnel on CG fisheries/MPS patrols.	G-O

b. Mid Term

1) Establish a senior officer liaison billet to NOAA to increase CG input and interaction in developing MPS issues and regulations.	G-M/G-O
2) Establish a senior officer liaison billet to Council on Environmental Quality (CEQ).	G-M/G-O
3) Create opportunities for undergraduate/graduate level marine affairs students to experience CG fisheries and MPS operations.	G-O

c. Long term

1) Consider engaging other agencies in joint rulemaking for MPS regulations.	G-L/G-M
--	---------

STRATEGY: PUBLICIZE OUR EFFORTS

1. DISCUSSION

The Coast Guard already has many marine protected species success stories to tell. We are partnering with the USFWS to educate the boating public and reduce manatee deaths by enforcing speed zone regulations in Florida. We are working closely with NMFS and environmental agencies to help protect the highly endangered northern right whale. In Hawaii, we remove tons of derelict fishing nets from coral reefs that are critical habitat of the endangered Hawaiian monk seal. Conducting this work, however, is only half of the job.

If the public is to perceive us as stewards of the ocean, then we must highlight our efforts and successes to the press and the public at every opportunity. Local units need to let communities know what we are doing to protect their waters. Districts should emphasize the importance of our MPS mission in maintaining healthy, sustainable ecosystems. Area and Headquarters staffs must cultivate relationships with the press, civic leaders, stakeholders and legislators to ensure they are aware of the valuable work the Coast Guard is doing. The public must recognize we are the nation's most valuable maritime asset in the effort to protect and sustain our oceans and their resources. The more we are seen taking positive, decisive action and producing good results, the more the public will demand we be properly resourced to perform this vital mission.

2. KEY OBJECTIVES

a. Near Term

1) Maximize publicity of cooperative MPS efforts with federal and state agencies and non-governmental organizations.	G-I/G-L/ G-M/G-O
2) Maximize publicity of Sea Partners MPS initiatives.	G-I/G-M
3) Use inspections and examinations as opportunities to provide MPS information packages to vessels.	G-M/G-O

b. Mid Term

1) Use publicity to generate interest in, and develop ideas for, future marine environment cleanups and other initiatives.	G-I
2) Optimize publicity of CG role in MPS task forces.	G-I
3) Maximize publicity of CG Auxiliary public education efforts in MPS identification, sensitivity, and avoidance measures.	G-I/G-O

c. Long term

1) Develop an interactive forum for public comment and ideas regarding MPS protection.	G-I
2) Raise the profile of the MPS mission to attract recruits with interest in environmental issues.	G-W

THIS PAGE INTENTIONALLY LEFT BLANK



COMDTINST 16475.7
MAY 27 2003

COMMANDANT INSTRUCTION 16475.7

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

- Ref:
- (a) National Environmental Policy Act, 42 U.S.C. Sections 4321-4335
 - (b) Endangered Species Act of 1973, 16 U.S.C., Sections 1531-1544
 - (c) Marine Mammal Protection Act of 1972 16 U.S.C., Sections 1361-1421
 - (d) National Sanctuaries Act, 16 U.S.C. 1431 et seq.
 - (e) Migratory Bird Treaty Act, 16 U.S.C. Sections 703-712
 - (f) National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual, COMDTINST M16475 (series)
 - (g) Maritime Law Enforcement Manual, COMDTINST M16247.1 (series)
 - (h) Final Environmental Impact Statement for the U.S. Coast Guard Atlantic Protected Living Marine Resources (APLMR) Initiative (NOTAL)
 - (i) Ocean Steward, Protected Living Marine Resources Strategic Plan
 - (j) COMDT COGARD (G-OPL) Washington DC 261302Z Sep 02 (NOTAL)
 - (k) COMDT COGARD (G-OPL) Washington DC 251923Z Oct 02 (NOTAL)
 - (l) Final Baseline Assessment of U.S. Coast Guard Operations in the Gulf of Mexico of 15 Dec 97
 - (m) Final Baseline Assessment of U.S. Coast Guard Operations in Alaska of 27 Apr 01
 - (n) Final Endangered Species Act Biological Assessment for the U.S. Atlantic Coast of 1 Aug 95
 - (o) COMPACAREA COGARD (PO) Alameda CA 031922Z Jul 02 (NOTAL)

1. PURPOSE. Outline Coast Guard actions, during Coast Guard operations, to support the recovery of protected living marine resources through internal compliance with and enforcement of Federal, State and international laws designed to preserve marine protected species. District Commanders are required, as part of the Coast Guard wide effort, to establish, maintain and update their Protected Living Marine Resources Program (PLMRP). The PLMRP will ensure Coast Guard operations

DISTRIBUTION – SDL No.

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A	1	1				1	1		1	1			1	1												
B		2	2																							
C	1	1			1			1	1					1												1
D				1									1													
E	1		1																1							
F																										
G																										
H																										

NON-STANDARD DISTRIBUTION:

comply with references (a) thru (h) and other applicable Federal regulations and guidance such as Executive Orders. Additionally, to supplement the general enforcement guidance provided by reference (g) the PLMRP will provide specific enforcement guidance, when appropriate, that will address the unique environment and population of protected species of the District. The PLMRP focuses on Coast Guard cutter, boat and aircraft operations; not on the activities involved in construction, maintenance and repair of shore facilities.

2. ACTION. District Commanders shall establish and maintain a Protected Living Marine Resources Program. Internet release is authorized.
3. DIRECTIVES AFFECTED. None.
4. BACKGROUND. Reference (h) is the Coast Guard Environmental Impact Statement (EIS) delineating the potential threat of Coast Guard operations to protected species in the Atlantic Ocean, which includes the preferred alternative to mitigate negative interactions between Coast Guard units and marine protected species. One of the EIS mitigation measures contained in the preferred alternative requires the establishment of a Commandant Instruction on Protected Living Marine Resources and the development of District protected living marine resources programs. In addition, the Marine Protected Species Division (G-OPL-5) was established within the Office of Law Enforcement (G-OPL) and the Commandant issued reference (i): the Coast Guard's Strategic Plan for Marine Protected Species (Ocean Steward). Ocean Steward is a vital element in the Coast Guard's strategic goal of protecting our natural resources.
5. DISCUSSION. In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. The Coast Guard already has effective, coordinated plans for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. There is a need to adapt the same approach to marine protected species, specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, and similar regulations or executive orders.
6. PROCEDURES. Ocean Steward's goal is to help the nation recover and maintain healthy populations of marine protected species. Baseline Assessments (BA) for all oceanic environments in which the Coast Guard operates will be prepared and updated to assist the process of identifying possible interactions with protected species. Thereafter, Environmental Assessments (EA) and EISs will be prepared as appropriate. Headquarters, working with the affected Area, will prepare BAs, EAs and EISs, with assistance of field units, as needed. These documents will serve to support each District PLMRP. Consistent with these documents Districts shall:
 - a. Identify local and migratory/seasonal populations of protected species and take action as appropriate to reduce potential opportunities for conflict between the protected species and Coast Guard vessel or aircraft operations.
 - (1) In identifying populations of indigenous and migratory protected species, districts should consider guidance provided in Biological Assessments (references l thru n), local knowledge, National Marine Sanctuaries, and any formally designated and/or candidate Marine Protected Areas. (Enclosure (1) is a current list of marine protected species)

Districts should also consider partnering or coordinating with the local offices of the Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries in identifying populations of indigenous and migratory protected species in the area.

- (2) In striving to reduce potential opportunities for conflict between protected species and operations, districts should encourage area avoidance, promulgate speed/approach guidance similar to reference (o), ensure the posting of properly trained lookouts aboard cutters, and other similar measures where appropriate.
- b. Participate in multi-agency planning groups to identify potential for non-regulatory cooperative efforts designed to lessen or eliminate future impact upon regional and migratory protected and candidate species. Planning groups appropriate for district participation might include take reduction teams, sanctuary advisory committees, and stranding networks.
- c. Record PLMR efforts in appropriate databases (i.e., AOPS, MISLE) and message traffic (i.e., LMR Enforcement Summary, SITREPs) to ensure accurate archiving of Coast Guard activities and Auxiliary response.
 - (1) AOPS - Record resource hours dedicated to activities involving protected living marine resources. Additional guidance is provided in reference (j) and the AOPS Users Guide. The latter is available on the intranet at <http://aops.osc.uscg.mil>.
 - (2) MISLE – Record boardings and enforcement actions involving protected living marine resources. Additional guidance is provided in reference (k) and the MISLE Users Guide. The latter is available on the intranet at http://mislenet.osc.uscg.mil/user_guides.aspx.
 - (3) LMR Enforcement Summary – Record significant events involving protected living marine resources, including assistance to other agencies and incidents where other operational commitments prevented Coast Guard units from responding to legitimate requests for assistance involving marine protected species recovery activities. Additional guidance is provided in reference (k) and enclosure (4) to reference (g).
 - (4) SITREP – Law Enforcement SITREPS for events involving protected living marine resources should be prepared in accordance with and when prescribed by enclosure (4) to reference (g).
- d. Protected living marine resources programs that support the Coast Guard's Strategic Plan and meet the objectives delineated in reference (i) shall include:
 - (1) Description of areas of special interest, including designated critical habitats and marine sanctuaries;
 - (2) Enforcement procedures; Districts should develop specific guidance, taking into account the particularities of the natural environment in which they operate, to supplement the general enforcement guidance already provided in chapter 8, paragraph 3 of reference (g);

- (3) Marine animal stranding response protocols to include Area Contingency Plan for Oil and Hazardous Waste Spill Control;
- (4) Operational control (OPCON) and monitoring responsibilities;
- (5) Procedures for disposition of dead or injured protected species; and
- (6) Forms for reporting boat collisions with marine animals, entangled turtles or whales as well as the names and telephone numbers for stranding network personnel. Generic forms, enclosure (2), can be downloaded from the G-OPL-5 website (<http://cgweb.uscg.mil/g-o/g-opl/>) and customized to meet District specific needs.

Note: (Enclosure (3) is a sample PLMRP instruction, that is illustrative only, and can be downloaded from the G-OPL-5 website (<http://cgweb.uscg.mil/g-o/g-opl/>) to assist the development of a District instruction tailored for the particular environment)

- 7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This document falls under categorical exclusion number 33 (figure 2-1) of reference (f) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.
- 8. FORMS/REPORTS. None.

//S//

D. S. BELZ
Assistant Commandant for Operations

Encl: (1) Listing of Protected Species
(2) Sample Forms
(3) Sample PLMRP Instruction (based on D17 Instruction)

LISTING OF PROTECTED SPECIES

(Current as of 3 April 2003)

Sea Turtles

Green Turtle
Hawksbill Turtle
Kemp's Ridley Turtle
Leatherback Turtle
Loggerhead Turtle
Olive Ridley Turtle

Cetaceans

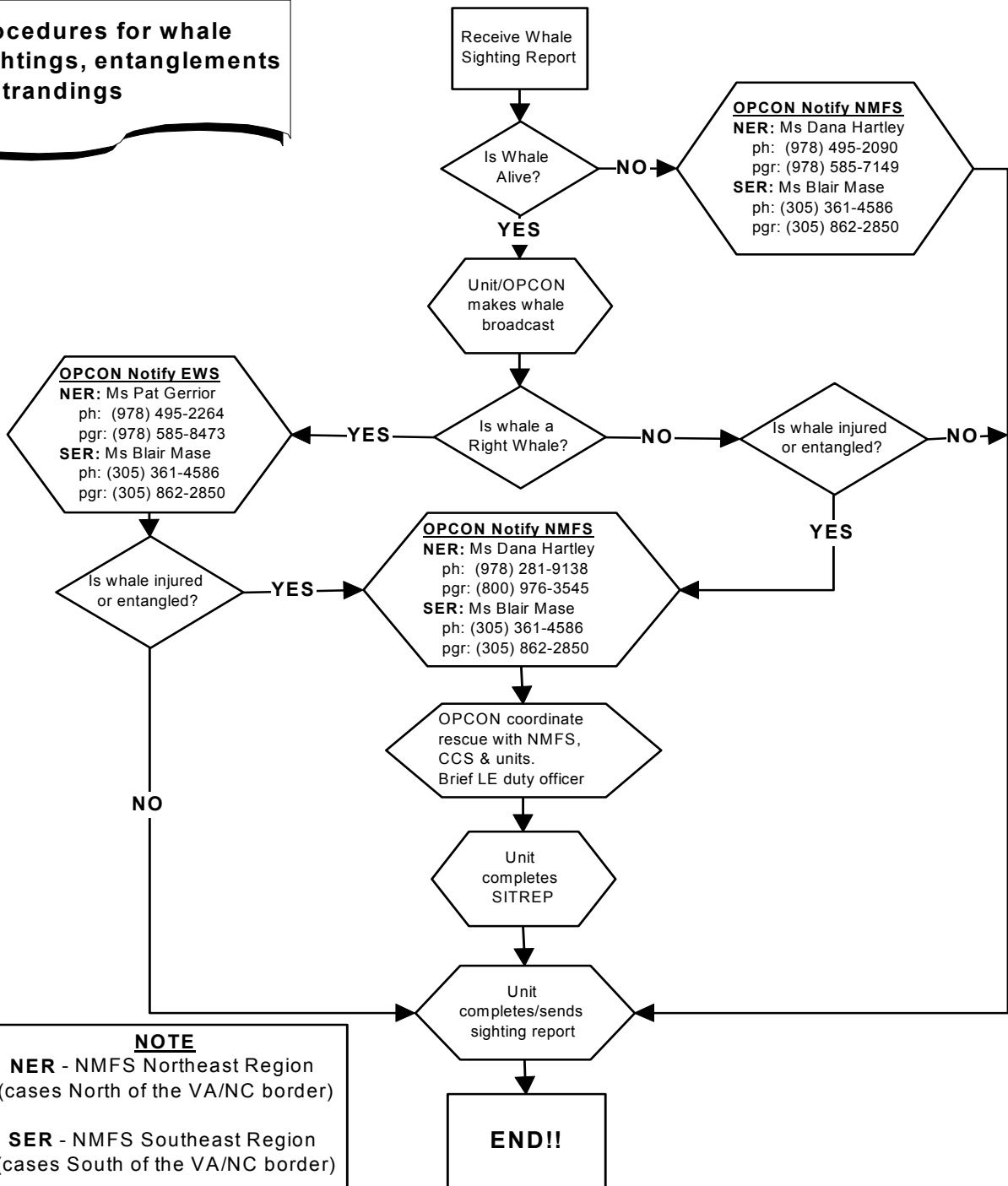
Blue Whale
Sei Whale
Fin Whale
Gray Whale
Sperm Whale
Northern Right Whale
Humpback Whale
Beluga Whale
Spinner Dolphin
Spotted Dolphin
Bottlenose Dolphin
Harbor Porpoise

Pinnipeds

Caribbean Monk Seal
Guadalupe Fur Seal
Hawaiian Monk Seal
Steller Sea Lions

Whale Sighting, Entanglement, Stranding Procedures

Procedures for whale sightings, entanglements & strandings



Whale Sighting Form

Name of Reporter: _____

Vessel Name or Aircraft Number: _____

Date and time of sighting: _____

Position (Lat/Long): _____

Species observed: _____

ID Certainty: ☐ Definite ☐ Probable ☐ Possible

Number identified: _____

Distinguishing Characteristics:

[Key features - size, body shape, color, blow, natural markings, (spots, blazes) dorsal fin and flippers (size and shape)]

Comments:

[calf present, injuries/wounds, behavior, other species present]

Photos taken:

[roll & frame numbers, tape number]

After completing form mail to:

New Jersey through Virginia
Protected Species Branch
National Marine Fisheries Service
166 Water Street
Woods Hole, MA 02543
(508) 495-2087 Fax: (508) 495-2258

North Carolina
Blair Mase
SouthEast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149
(305) 361-4586 Fax: (305) 361-4562

ENTANGLEMENT AND BOAT COLLISION REPORTING FORM**I. REPORTING SOURCE**

Time/Date: _____	Reporting Source: _____
Vessel Name: _____	Doc/Reg Number: _____
Radio Call: _____	Cell Phone: _____
1st or 2nd hand Report: _____	How long can R/S remain O/S?: _____

II. DETAILS OF INCIDENT

Position: _____	Geographic Desc: _____
O/S Wx: Winds _____ T/_____ KTS,	Swell _____ T/_____ FT
Seas _____ T/_____ FT, Vis _____ NM, Temp _____ F, Baro _____ (R/F/S)	
Species: _____	Number of Animals: _____
Dorsal Fin: _____	Color: _____
Size: _____	Dead/Alive: _____
Distinguishing Marks: _____	Photo/Video Taken: _____
Type of Entanglement: _____	Nature of Injury: _____
Traveling or Anchored by Gear: _____	Course/Speed: _____

III. ENTANGLEMENT

Type of Gear & Identifying Features (color, reg #, etc) _____	
Type of Line (Dia, color, material) _____	
Mesh Visible?: YES/NO _____	Float/Other Gear Trailing?: _____
Part of Body Entangled?: _____	# Wraps around Tail/Body: _____
Life Threatening?/Describe: _____	

IV. ANIMAL'S APPEARANCE

First Impression of Condition: _____
Skin Condition (peeling, color, whale lice, etc): _____
Obvious Bleeding/Wounds: _____
Marks Fresh or Healing?: _____
Weight (robust, emaciated, ribs or vertebrae showing): _____

V. ANIMAL'S BEHAVIOR

General Description: _____
Breathing (pattern, sound, smell?): _____
Struggling to Breathe?: _____
Lifting Head/Flukes above water?: _____
Effects on movement (flexibility, buoyancy, surfacing angle, ability to dive, appendage movement, etc): _____

VI. COLLISION

Type of Wound (prop wound, part cut off, etc): _____	
Location: _____	Severity: _____
Vessel Involved: _____	Doc/Reg #: _____
Operator: _____	Homeport: _____

COAST GUARD DISTRICT INSTRUCTION 16XXX.X

Subj: PROTECTED LIVING MARINE RESOURCES PROGRAM

Ref: (a) 50 CFR Part 216 - Regulations Governing the Taking and Importing of Marine Mammals
(b) 50 CFR Part 222 - Endangered Fish and Wildlife
(c) 50 CFR Part 226 - Designated Critical Habitats
(d) 50 CFR Part 227 - Threatened Fish and Wildlife
(e) Maritime Law Enforcement Manual, COMDTINST 16247.1 (series)

1. PURPOSE. This instruction directs Coast Guard units within XXXXXX District waters to further federally mandated protection and recovery objectives for marine mammals and endangered marine species. It is intended to minimize the impact of Coast Guard operations on such species and to prevent, detect, and initiate enforcement action on, violations of those U.S. laws protecting Marine Mammals and Endangered Species.
2. ACTION. All XXXXXX District units, cutters, and aircraft operating within the XXXXXX District shall comply with the provisions of references (a) through (e) and enclosure (1) of this instruction.
3. DIRECTIVES AFFECTED. None
4. DISCUSSION. The National Oceanic and Atmospheric Administration (NOAA) Fisheries is the primary federal agency responsible for the conservation and management of Living Marine Resources (with the exception of sea otters, polar bears and walrus which are under the jurisdiction of the U.S. Fish and Wildlife Service). The Coast Guard has authority to perform law enforcement activity upon the high seas and waters subject to U.S. Jurisdiction for the prevention, detection, and suppression of violations of U.S. Law, as well as to provide support to NOAA Fisheries to meet management goals for protected marine mammals. The Coast Guard and NOAA Fisheries are both responsible for enforcing violations of the Endangered Species Act (ESA).
5. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive, and have been determined not to be applicable.

6. FORMS/REPORTS. None.

XXXXXXXXXXXX
Chief of Staff

Encl: (1) Marine Mammal & Endangered Species Protection Program

PROTECTED LIVING MARINE RESOURCES PROGRAM
(Enclosure (1) to Sample DISTINST)

1. AREAS OF SPECIAL INTEREST. The XXXXX District Protected Living Marine Resources Program applies to littoral and offshore waters. However, designated critical habitats are of special importance. Units should review reference (c) to become familiar with those habitats designated as critical to endangered and threatened species under Section 7 of the Endangered Species Act (ESA). Within the XXXXX District, specific areas of concern include steller sea lion rookeries, haulouts and associated areas as listed in part 226.12(a) and 227.12, and three proposed special aquatic foraging areas as listed in part 226.12(c).
2. CUTTER TRANSITS. Whales can be expected to be encountered in inshore and offshore waters of the XXXXX District throughout the year.
 - A. During the course of non-emergent operations all vessels will incorporate the following speed guidance:

Reductions in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. In these situations, vessels shall use those courses and speeds as appropriate, yet navigationally prudent, to avoid a collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.
 - B. During the course of non-emergent operations all vessels will incorporate the following approach guidance:

Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act.
 - C. These guidelines should not influence the conduct of emergency operations: those that require rapid response such as SAR to avoid loss of life and property, urgent law enforcement incidents, and situations involving national security.

3. UNIT RESPONSIBILITIES:

A. NOTIFICATIONS:

- (1) ENTANGLEMENTS, BOAT COLLISIONS, AND STRANDINGS - In cases of entanglement, boat collisions or strandings units shall complete the appropriate form and pass the information to the command center immediately. A copy of the Entanglement & Boat Collision Reporting Form is provided as enclosure (2). Coast Guard units should not attempt to remove debris from entangled whales.

A

Marine Mammal Stranding Report is provided as enclosure (3). The Command Center shall notify the appropriate authorities as outlined below:

- (a) Entangled or stranded whales. The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

- (b) Stranded/entangled Steller Sea Lions. Steller Sea Lion stocks west of 144° W longitude have recently been listed on the endangered species list.

The DXX Command Center shall immediately notify the NOAA Fisheries Protected Resource Management Division's Stranding Coordinator at (907)586-7235 (fax: 586-7012).

B. LOGISTICAL SUPPORT. Units are authorized and may be tasked by OPCON to provide logistical support for NOAA Fisheries-approved disentanglement and stranding teams and their equipment.

C. SITREP. All cases involving protection of endangered species will be documented via SITREP.

D. LETTER REPORT. Units which assist in the salvage, rescue or disposal of a marine mammal shall submit a letter report to the U.S. Fish and Wildlife Service in accordance with chapter 8 of the Maritime Law Enforcement Manual, with an information copy to CGDXX (moc).

4. DISPOSAL OF PROTECTED SPECIES. There is no specific U.S. Coast Guard responsibility for the salvage or disposal of dead whales. Only situations that pose a safety, health or navigation hazard, or involve significant public affairs interest should be pursued. Units shall not tow or attempt to sink dead marine mammals without OPCON concurrence. If there is no follow-up determined to be necessary by appropriate organizations after having been notified about the location of a dead whale or other protected species, abandon the

carcass and continue with normal operations.

5. DXX WHALE SIGHTING PROGRAM:

- A. UNIT PREPARATIONS. Units operating in the DXX AOR should review references (a) through (d) and follow the guidelines outlined in this instruction to establish an effective unit sighting program. The program will include reporting sightings to the National Marine Mammal Laboratory (NMML) for inclusion in their national data base. NMML distributed sighting forms to all cutters in PACAREA in June 1996. Additional forms may be obtained by calling the NMML at 206-526-4030. They will also answer any questions about the national sighting program.
- B. IDENTIFICATION GUIDES. Units should ensure that appropriate personnel are able to identify protected species. The Guide to Marine Mammals of Alaska is available from the Alaska Sea Grant College Program at the University of Alaska Fairbanks for \$15.00. This publication has pages which are water resistant in spiral bound format. NMML also recommends the Sierra Club Handbook of Whales and Dolphins and the Sierra Club Handbook of Seals and Sirenians, both available from the Sierra Club Bookstore, San Francisco (415)977-5600.
- C. COLLATERAL DUTY ASSIGNMENT. Units should identify a person onboard that has primary responsibility for photographing, videotaping and submitting completed sighting forms for endangered marine mammals.
- D. SIGHTING PRIORITIES. All sightings of marine mammals should be documented on the NMML Marine Mammal Sighting form. The specific priorities of the DXX sighting program are:
 - (1) Entangled or injured whales;
 - (2) "Floaters" - dead whales;
 - (3) Large groups of whales.
- E. PROBABLE LOCATIONS OF WHALES. Historical sighting data from aerial and shipboard surveys indicates whales are normally found in the vicinities of:
 - (1) West Coast of Alexander Archipelago (March-June) - gray whale seasonal migrants seen close to shore on the northbound transit.
 - (2) Shelikof Bay (Kruzof Island) (July-August) - a few gray whales are seen in and near this bay.
 - (3) Davidson Bay (Chichagof Island) (July-August) - a few gray whales are seen in and near this bay.

- (4) West coasts of Prince of Wales Island, Baranof Island and Chichagof Island (March-September) - humpback whales are found in scattered distribution. (September-early February) - humpback whales are found in clumped distribution in areas where herring overwinter (Ullola Channel, Sitka Sound, Tenakee Inlet and sometimes Salisbury Sound and Lisianski Inlet).
- (5) Ketchikan Area (Revillagigedo Channel and lower Clarence Strait) (December) - a few humpback whales, with increasing sightings in the past 2-3 years.
- (6) Seymour Canal (October-early February) humpback whales.
- (7) Lower Lynn Canal and upper Stephens Passage (May-September and January) - humpback whales in increasing numbers in the past 2-3 years.
- (8) Upper Lynn Canal (May) - humpback whales.
- (9) Frederick Sound and Stephens Passage (late July-September) - humpback whales.
- (10) Chatham Strait (May-October) - humpback whales. Tenakee Inlet has sightings into October most years.
- (11) Icy Strait and Glacier Bay (May-September) humpback whales.
- (12) Coastal corridor Cape St. Elias to Unimak Pass (March-June) - migrating gray whales.
- (13) Middleton Island to shelf edge SE of Kodiak (Summer) - sperm whales.
- (14) Stevenson Entrance (between Afognak and Barren Islands) and Marmot Bay (June-October) - humpback and fin whales.
- (15) Unimak Pass (Spring-Fall) - migrating gray whales. (Summer and possibly year-round) - humpback whales.
- (16) Western Aleutians (Buldir, Seguam Pass) (Summer) - sperm whales and beaked whales.
- (17) Shelikof Strait to Chirikof Is. (spring-fall) - humpback and fin whales.
- (18) Upper Cook Inlet (May-September) - beluga whales.
- (19) Kenai River (September-October) - beluga whales.
- (20) Kachemak Bay (May) - beluga whales.

- (21) Kotzebue (June-July) - beluga whales.
- (22) Point Lay (July) - beluga whales.
- (23) Yakutat (Winter) - beluga whales.
- (24) Norton Sound beluga whales follow the icepack north.
- (25) Bowhead whales are found on the North Slope and also in the North/Northwestern Bering Sea.

F. FORWARDING OF SIGHTING REPORTS. Whale sighting information shall be documented on the NMML Marine Mammal Sighting form, and forwarded to the address on the form at the end of patrol. Use of 35-mm photographs and VHS video to supplement reports is encouraged.

6. ENFORCEMENT OF MMPA AND ESA VIOLATIONS

A. PHILOSOPHY. Enforcement of Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) regulations will target significant violators. The MMPA prohibits the take of all marine mammal species in U.S. waters. "Take" is defined as "to harass, hunt, capture, collect or kill, or attempt to harass, hunt, capture, collect or kill any marine mammal." Education is recognized as being a fundamental part of enforcement efforts.

B. HARASSMENT DEFINITIONS. The term "harassment" is an element of taking under the MMPA and includes two levels:

- (1) LEVEL A - An act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild.
- (2) LEVEL B - An act of pursuit, torment, or annoyance that has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding or sheltering, but which does not have the potential to injure a marine mammal or marine mammal stock in the wild.

C. EXAMPLES OF HARASSMENT:

- (1) Human Interactions - Diving or swimming, throwing objects, human feeding (disrupts natural eating habits), high speed approaches by a vessel, and deliberately maneuvering a vessel close to a whale are clear examples of harassment.
- (2) More Subtle Violations - Units should also be aware of more subtle violations.

Persistent engagement of a vessel in a manner that results in a recognizable and articulable disturbance of the marine mammal or endangered marine species is also a violation. Detailed narratives, videotapes, and/or photographs are essential in thoroughly documenting these cases.

D. STANDARD FOR DOCUMENTING VIOLATIONS. Evidence of the following elements of a violation should be obtained to establish a violation of the MMPA or ESA:

- (1) Personal knowledge of the guidelines contained in references (a) through (d) (this can be assumed of whale watching boat operators).
- (2) Refusal to observe the guidelines contained in references (a) through (d) once advised/reminded.
- (3) Documented behavior (observed, photographed, videotaped, etc.) fitting the harassment definition above.
- (4) Distances between the violator and whale before, during, and after the incident.
 - (a) Buffer Zone. There is a buffer zone surrounding all whales which consists of an area outward from the whale a distance of 100 yards in all directions. Northern right whales have a 500 yard buffer zone.
 - (b) Approaches. Vessels may not approach a whale or turn in any manner to intercept a whale within a buffer zone.
 - (c) Interference. No vessel may disrupt the behavior of a whale within a buffer zone.
 - (d) Exceptions. Any person issued a federal scientific research permit may conduct scientific research, observation or management as authorized under the permit.
 - (e) Commercial Fishing. Commercial fishing vessels hauling back, towing gear or fishing at anchor within a buffer zone created by a surfacing whale may complete the haul, tow or fishing operation, provided it does so with minimum disruption to the whale, does so in a direction away from the whale and departs the buffer zone immediately after the haul, tow or fishing operation.

E. ISSUING A VIOLATION

- (1) Standards Present - If "harassment" as discussed in paragraph 6 is observed, board the vessel (if weather/operations permit) and attempt to educate the vessel

operator. Issuing a written warning for minor infractions is authorized at the boarding officer's discretion if it is deemed that the mariner's actions were unintended or due to ignorance of the law and will be corrected.

- (2) Persistence - If the master of the vessel persists in harassment, or the actions of the vessel are plainly dangerous or involve a significant act of harassment, issue a violation to the master.
- (3) Documentation - In documenting a violation, it is critical to identify distances as well as marine mammal behavior before, during, and after the incident. Submit the Enforcement Action Report (EAR) and documentation in the same manner as MFCMA violations to the local NMFS agent. A list of all witnesses to the incident with phone numbers and/or addresses is also very important. Identify individuals or other vessels who are potential witnesses in your Offense Investigation Report (OIR) statements.

F. SPECIAL CIRCUMSTANCES INVOLVING WHALE WATCHING BOATS.

Commercial whale watching boats need not be boarded for all perceived violations. If apparent violations are observed, document the suspected violations (obtain necessary information via radio) and forward the completed case package (if appropriate) to NMFS, with a copy to the appropriate MSO for possible licensing sanctions.



COMDTINST 16004.3A
OCT 15 2003

COMMANDANT INSTRUCTION 16004.3A

Subj: COAST GUARD PARTICIPATION IN THE MARINE SANCTUARY PROGRAM

Ref: (a) Abstract of Operations Reports, COMDTINST M3123.7 (series)
(b) Maritime Law Enforcement Manual (MLEM), COMDTINST M16247.1 (series)
(c) COMDT COGARD Washington DC 261302Z SEP 02

1. PURPOSE. To provide policy guidance for Coast Guard participation in the National Marine Sanctuary Program.
2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with the provisions of this Instruction. Internet release is authorized.
3. DIRECTIVES AFFECTED. Coast Guard Participation in the National Marine Sanctuary Program, COMDTINST 16004.3, and National Marine Sanctuary Law Enforcement Program, COMDTINST 16214.2, are cancelled.
4. BACKGROUND.
 - a. In 1972, in response to a growing awareness of the intrinsic environmental and cultural value of our coastal waters, Congress passed the Marine Protection, Research, and Sanctuaries Act (16 U.S.C. 1431, et seq.). The Marine Protection, Research, and Sanctuaries Act (NMSA) authorizes the Secretary of Commerce to designate discrete areas of the marine environment as national marine sanctuaries to promote comprehensive management of their unique ecological, historical, recreational and aesthetic resources.

DISTRIBUTION – SDL No. 140

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A	1	1				1	1		1	1			1	1												
B		2	20*	1	1																					
C	1	1			1									1												1
D				1																						
E	1																									
F																										
G																										
H																										

NON-STANDARD DISTRIBUTION: *B:c MLC's (6 extra)

COMDTINST 16004.3A

- b. The National Marine Sanctuary Program (NMS) is administered by the Secretary of Commerce through the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS). The program provides a coordinated and comprehensive approach to identify, designate and manage areas of the maritime environment of special national significance.
- c. The goals of the NMS program are:
 - (1) To enhance resource protection through the implementation of a comprehensive, long-term management plan tailored to specific resources;
 - (2) To promote and coordinate research to expand the scientific knowledge of significant marine resources and improve interagency decision making;
 - (3) To enhance public awareness, understanding, and wise use of the marine environment through public interpretive and recreational programs; and
 - (4) To provide, to the extent compatible with the primary objective of resource protection, the optimum public and private use of special marine areas.
- d. NOS is responsible for carrying out these goals through cooperative partnerships between Federal, state and local agencies, educational and research institutions, and nongovernmental organizations. The Coast Guard contributes to this effort through waterways management responsibilities, marine environmental protection activities, and the enforcement of sanctuary regulations as a part of its law enforcement activities.
- e. Thirteen national marine sanctuaries are currently designated and a fourteenth is proposed. The contact information for each of these sanctuaries is listed in enclosure (1).

5. DISCUSSION.

- a. Enforcement Authority.
 - (1) Where marine sanctuaries lie in state waters, NOS primarily coordinates enforcement with state enforcement agencies. In waters beyond state jurisdiction, the Coast Guard is the primary maritime enforcement agency.
 - (2) The Coast Guard has authority to enforce the NMSA under 14 U.S.C. 2 and 14 U.S.C. 89. Section 1437(h) of the NMSA specifically states that nothing shall be considered to limit the Coast Guard's authority to enforce the NMSA or any other Federal law. The Coast Guard may enforce all applicable Federal laws within the boundaries of national marine sanctuaries.
 - (3) Violations of marine sanctuary regulations are prosecuted by the NOAA General Counsel.

- b. Enforcement Philosophy. NOS's sanctuary management philosophy is based primarily upon an educational approach. Their objective is to foster voluntary compliance by those who use the Nation's marine sanctuaries, and to promote a feeling of stewardship toward the various living and cultural resources these sanctuaries were created to protect. The Coast Guard supports this philosophy. Nevertheless, sanctuaries require routine presence of law enforcement resources to deter and detect violations.
- c. Sanctuary Management Plans. Each marine sanctuary is unique and is managed and regulated by NOS with regard to its location and the specific nature of, and threats to, its resources. Individual sanctuary management plans establish the framework to achieve long term resource protection by tailoring management programs to the needs of the particular site.

6. PROCEDURES.

- a. Effective coordination of waterways management issues, marine environmental protection issues, and the enforcement of sanctuary regulations are important components of the National Marine Sanctuary Program. To that end, the Coast Guard will work closely with NOS to ensure the comprehensive and coordinated conservation and management of these special areas of the marine environment. Particularly, the Coast Guard will work with NOS to ensure its enforcement efforts complement those of other Federal, state and local agencies.
- b. The Coast Guard will actively participate at all levels with NOS and other Federal, state and local agencies in evaluating proposals for new sanctuaries, developing management plans and regulations for designated sanctuaries, and coordinating Coast Guard operations within sanctuary boundaries. The Coast Guard's early involvement in the development stage of management plans is particularly important to effectively integrating Coast Guard programs within the sanctuaries.
- c. The Coast Guard will assist NOS in its efforts to educate the boating public with regard to marine sanctuary regulations by involving the Coast Guard Auxiliary. By incorporating information provided by NOS on the sanctuary program, the Auxiliary can significantly contribute to the goal of enhancing public awareness of sanctuary regulations and promoting public stewardship of these unique national resources.
- d. Area commanders shall:
 - (1) Designate an appropriate office to coordinate area and district participation in the National Marine Sanctuary Program.
 - (2) Ensure units under their command properly document marine sanctuary enforcement efforts per reference (a).

COMDTINST 16004.3A

e. District commanders shall:

- (1) Establish close liaison with the regional NOAA Fisheries Special Agent in Charge and local sanctuary managers to determine appropriate levels of enforcement activity and ensure timely analysis of enforcement needs. Procedures for coordinating enforcement activity shall be set out in a Memoranda of Agreement (MOA). Copies of such agreements shall be provided to Commandant (G-OPL) and the cognizant area commander.
- (2) Provide routine surveillance of the marine sanctuaries concurrently with other Coast Guard operations, and provide specific, targeted or dedicated law enforcement as appropriate. Sanctuary surveillance and enforcement should be incorporated into routine patrol orders where feasible.
- (3) Keep NOAA Fisheries and the local sanctuary managers informed of Coast Guard operations occurring within sanctuary boundaries.
- (4) Participate with NOS and other Federal, state and local agencies in the development of sanctuary management plans and regulations to provide advice on the enforceability and safety of regulatory proposals and impacts on Coast Guard operations within sanctuary boundaries.
- (5) Assist NOAA Fisheries and the local sanctuary managers in assessing the level and nature of user activity in the sanctuaries through coordinated surveillance patrols.
- (6) Review violations of sanctuary regulations as documented by Coast Guard units on Enforcement Action Reports and Offense Investigation Reports. Forward completed enforcement case documentation to NOAA Fisheries for processing and final adjudication by NOAA General Counsel per reference (b).
- (7) Coordinate cooperation of the Auxiliary with the local sanctuary managers in providing NOS educational material to the boating public during Auxiliary boating safety courses, courtesy safety examinations, and other activities as deemed appropriate.

f. The Assistant Commandant for Operations (G-O) shall, through the Office of Law Enforcement (G-OPL):

- (1) Participate at the national level as the central headquarters point of contact for the National Marine Sanctuary Program and law enforcement issues.
- (2) Coordinate with the Office of Response (G-MOR) for marine environmental protection and contingency planning issues.
- (3) Coordinate with the Office of Aids to Navigation (G-OPN) and the Office of Vessel Traffic Management (G-MWV) for navigation and waterways management issues.

7. ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS. Environmental considerations were examined in the development of this directive. This Instruction falls under categorical exclusion number 33 (figure 2-1) of National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts Manual COMDTINST M16475.1 (series) as it is a guidance document that implements applicable statutory, regulatory and other guidance documents without substantive change.
8. FORMS/REPORTS.
 - a. Marine sanctuary enforcement effort shall be documented as ELT-PLMR mission/employment category in aircraft, boat and cutter abstract of operation reports per references (a) and (c).
 - b. Violations of marine sanctuary regulations shall be documented on the Enforcement Action Report (CG-5201) and the Fisheries Boarding Investigation Report (FBIR four page form) or Offense Investigation Report (CG-5202) per reference (b), and reported in MISLE.

D. S. BELZ/s/
Assistant Commandant for Operations

Encl: (1) List of designated and proposed National Marine Sanctuaries

Encl. (1) to COMDTINST 16004.3A

LIST OF DESIGNATED AND PROPOSED NATIONAL MARINE SANCTUARIES

CHANNEL ISLAND NATIONAL MARINE SANCTUARY

Santa Barbara Office
113 Harbor Way, Suite 150
Santa Barbara, CA 93109
Phone: (805) 966-7107
Fax: (805) 568-1582

Southern Office
Channel Islands Harbor
3600 S. Harbor Blvd., Suite 217
Oxnard, CA. 93035
Phone: (805) 382-6149
Fax: (805) 382-9791
Sanctuary Manager: Chris Mobley
E-mail: Chris.Mobley@noaa.gov
Web: <http://channelislands.noaa.gov/>

CORDELL BANK NATIONAL MARINE SANCTUARY

1 Bear Valley Rd.
Point Reyes Station, CA 94956
Mailing address:
PO Box 159
Olema, CA 94950
Phone: (415) 663-0314
Fax: (415) 663-0315
Sanctuary Manager: Dan Howard
E-mail: cordellbank@noaa.gov
Web: <http://cordellbank.noaa.gov/>

FAGATELE BAY NATIONAL MARINE SANCTUARY

Fagatele Bay National Marine Sanctuary
P.O. Box 4318
Pago Pago, American Samoa 96799
Phone: (684) 633-7354
Fax: (684) 633-7355
Sanctuary Coordinator: Nancy Daschbach
E-mail: fagatelebay@noaa.gov
Web: <http://fagatelebay.noaa.gov/>

FLORIDA KEYS NATIONAL MARINE SANCTUARY

P.O. Box 500368
Marathon, FL 33050
Phone: (305) 743-2437
Fax: (305) 743-2357
Sanctuary Superintendent: Billy Causey
E-mail: billy.causey@noaa.gov
Web: <http://floridakeys.noaa.gov/>

FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY

1200 Briarcrest, Suite 4000
Bryan, TX 77802
Phone: (979) 846-5942
Fax: (979) 846-5959
Sanctuary Manager: George Schmahl
E-mail: george.schmahl@noaa.gov
Web: <http://flowergarden.noaa.gov/>

GRAY'S REEF NATIONAL MARINE SANCTUARY

10 Ocean Science Circle
Savannah, GA 31411
Phone: (912) 598-2345;
Fax: (912) 598-2367
Sanctuary Manager: Reed Bohne
E-mail: graysreef@noaa.gov
Web: <http://graysreef.noaa.gov/>

Encl. (1) to COMDTINST 16004.3A

GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY

Fort Mason, Bldg. 201
San Francisco, CA 94123
Phone: (415) 561-6622
Fax: (415) 561-6616
Sanctuary Manager: Ed Ueber
E-mail: farallones@noaa.gov
Web: <http://farallones.nos.noaa.gov>

HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY

Maui Headquarters Office
726 South Kihei Road
Kihei, Hawaii 96753
Phone: (800) 831-4888 or (808) 879-2818
Fax: (808) 874-3815
Sanctuary Manager: Naomi McIntosh
E-mail: hihumpbackwhale@noaa.gov
Web: <http://hawaiiumpbackwhale.noaa.gov/>

MONITOR NATIONAL MARINE SANCTUARY

The Mariners' Museum
100 Museum Drive
Newport News, VA 23606
Phone: (757) 599-3122
Sanctuary Manager: John Broadwater
E-mail: monitor@noaa.gov
Web: <http://monitor.noaa.gov/>

MONTEREY BAY NATIONAL MARINE SANCTUARY

MBNMS Main Office
299 Foam Street
Monterey, California 93940
Phone: (831) 647-4201
Fax: (831) 647-4250
Sanctuary Superintendent: William Douros
E-mail: william.douros@noaa.gov
Web: <http://montereybay.noaa.gov/>

**(Proposed 14th sanctuary) NORTHWESTERN HAWAIIAN ISLANDS
CORAL REEF ECOSYSTEM RESERVE**

6700 Kalanianaʻole Hwy, #215
Honolulu, HI 96825
Phone: (808) 397-2668
Sanctuary Designation Coordinator: Sean Corson
E-mail: sean.corson@noaa.gov

OLYMPIC COAST NATIONAL MARINE SANCTUARY

115 East Railroad Ave
Suite 301
Port Angeles WA 98362
Phone: (360) 457-6622
Sanctuary Superintendent: Carol Bernthal
E-mail: olympiccoast@noaa.gov
Web: <http://olympiccoast.noaa.gov/>

STELLWAGEN BANK NATIONAL MARINE SANCTUARY

175 Edward Foster Road
Scituate, MA 02066
Phone: (781) 545-8026
Fax: (781) 545-8036
Sanctuary Superintendent: Craig MacDonald, Ph.D.
E-mail: craig.macdonald@noaa.gov
Web: <http://stellwagen.nos.noaa.gov/welcome.html>

Encl. (1) to COMDTINST 16004.3A

THUNDER BAY NATIONAL MARINE SANCTUARY AND UNDERWATER PRESERVE

145 Water Street

Alpena, Michigan 49707

Phone: (989) 356-8805

Fax: (989) 354-0144

Sanctuary Manager: Jeff Gray

E-mail: jeff.gray@noaa.gov

Web: <http://thunderbay.noaa.gov/>

Appendix E

AIR QUALITY ANALYSIS

THIS PAGE INTENTIONALLY LEFT BLANK

Honolulu MSST

State of Hawaii Air Quality Control Region

Scenario

Based on estimates from San Pedro Coast Guard Facility (11/27/02)

2 boats in harbor, 6 hrs/day 7 days/wk

3 boats on trailers for remote assignments; assume maximum of two in water 6 hrs/day, all outside State of Hawaii AQCR

1 spare boat

3 F-350 Ford gasoline pickups tow the trailers. Used about 15 days per month.

During military load-outs, the Harbor boats will patrol 12 hr/day for 1-2 days. The frequency of such events is dependent on world events, but will be at least 1-2 per month for the near future.

The trailered boats could be deployed to any location in the Pacific Islands, but their duties will be primarily located along the coastlines of Hawaii and Guam.

The 12 knot speed mentioned in the Description of Proposed Action is an average speed rather than an actual speed. The boats would rarely actually travel at 10-12 knots because that is a transition speed between displacement and planing for a boat of this size. As a result, that speed generates a significant wake, and results in unnecessary fuel consumption and emissions.

Boats will patrol at 7-8 knots in the harbor, with occasional periods of travel of approximately 35 knots to relocate, or to go out or return from escort assignments. Staff estimate 80% of the time is spent at low speed, and 20% of the time is spent at cruising speed. There are also occasional momentary bursts of up to 50 knots to intercept other watercraft. Boats patrolling outside of Honolulu Harbor will spend most of their time at cruising speed (approximately 35 knots) with a smaller fraction of time at low speed.

Two pre-fabricated buildings would be constructed to support the Proposed Action. Each building would be about 5,000 square feet. These buildings would include areas for boat storage, a small maintenance shop, a dive shop, and administrative offices. Emissions from transporting and erecting these buildings will be minimal and temporary, and have been omitted from further evaluation.

There will be a total of 71 active duty and 20 reservists associated with the Proposed Action. These will all be new staff (91) to the Honolulu Coast Guard facility. The reservists will come to Honolulu only one weekend per month for exercises.

Assumptions:

Assume that the two harbor patrols will be in State of Hawaii AQCR 100% of the time, running 6 hr/day, 329 days/yr.

Assume that the two harbor patrols will be on 12 hour Military Load-out patrols the other 36 days/yr

Assume that the boats that patrol the coastline will operate only in Honolulu Harbor.

Assume that all commuter vehicles are on the island of Oahu 100% of the time.

Assume that pickups with boat trailers will commute to the edge of Oahu 15 days per month.

No historical data on fuel use for comperable Coast Guard watercraft were available for Honolulu, Hawaii. However according to Chief Petty Officer Mark Wilkins (telecon 11/26/02) Coast Guard MSST patrols use about 45 gal in a 12-hour day.

Based on mileage data from comperable engines, see "Power Requirements" worksheet, these outboard motors have a thermal efficiency of approximately 22.6%.

$$\frac{(3.75 \text{ gal/hr}) (130,000 \text{ Btu/gal}) (22.6\% \text{ thermal efficiency})}{3413 \text{ Btu/kW-hr}} = 32 \text{ kW}$$

Based on tests of outboard boat efficiency, see "Power Requirements" worksheet, a 24 foot boat uses approximately 10.3 gal/hr at a cruising speed of 32 MPH. If we assume 80:20 ratio of cruising to idle speed for the deployed boats, as opposed to 20:80 for the Harbor Patrol boats, then the deployed boats would be expected to consume approximately 8.75 gallons per hour.

$$\frac{(8.75 \text{ gal/hr}) (130,000 \text{ Btu/gal}) (22.6\% \text{ thermal efficiency})}{3413 \text{ Btu/kW-hr}} = 75 \text{ kW}$$

Assume that the average total power demand for patrol boats over their 12-hour shifts will be:

50 HP avg. engine load to patrol harbor	=	37 kW
100 HP avg. engine load to cruise along coast	=	75 kW

Boat Activity in State of Hawaii AQCR:

	Two harbor patrol boats, 6 hr/day, 329 days/yr	
	Two harbor patrol boats, 12 hr/day, 36 days/yr	
Totals	4,812 boat-hrs in NYSDEC Region 2, Metropolitan AQCR or:	179,367 kW-hrs

Commuter Vehicles

This analysis will compute emissions associated with 77 active duty staff vehicles commuting an average of 60 miles per day (30 miles each way), one person per car, 240 days per year.

Reservists will be assumed to originate on the island of Ohau and their mileage will

be based on 12 round trips per year, commuting the same distance active duty staff, an average of 60 miles per trip.

The three Ford F-350 pickups will be assumed to travel from one edge of Ohau to the other 15 times per month (approximately 60 miles each round trip).

Fleet makeup and age assumptions are listed and emission factors are computed on the "Commute" sheet in this workbook.

Emissions of ferries used for interisland travel and of planes transporting reservists from out of state were not included in this analysis.

The average commute distance is of 30 miles each way is a conservative number based on the approximate distance across the island of Ohau.

Motor Vehicle Activity in State of Hawaii AQCR:

71 active duty staff, 60 mi/day, 240 days/yr.	1,022,400 vehicle miles traveled
3 Ford F-350s, 60 miles/trip, 180 trips/yr	32,400 vehicle miles traveled
20 reservists, 60 miles/trip, 12 trips/yr	14,400 vehicle miles traveled

Emissions From Watercraft

The specification for the Proposed Action motor procurement requires that current and future MSST engines meet federal 2006 model year emission standards for outboard motors (= California 2001-2003 MY standards).

Emission Factors **Not** Used in This Analysis - Presented for Comparison Purposes Only

Emission Factors from U.S. EPA NonRoad Model Version 2.2.0

For 4-Stroke Inboard Engines, Technology M3

Exhaust Emissions

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	Refuel	Diurnal
				HC g/day	HC g/day
10.36	5.41	173.75	0.08	1.8	3.0

The NonRoad Model does not include emission factors for 4-stroke outboard motors.

Furthermore, the NonRoad Model emission factors do not anticipate the federal MY2006 outboard engine emission standards (which the Proposed Action motors must meet).

These factors are moderately lower than the factors used in this analysis for NOx and HC, and moderately higher than the factor used in this analysis for CO. This PM10 factor is significantly lower than the factor used in this analysis, and may be more representative of a 4-stroke outboard than the factor used in this analysis. However, if the currently-selected engines were to be replaced by 2-stroke engines at some time during the life of the Proposed Action, the NonRoad Model PM10 factor listed above would likely underestimate 2-stroke outboard engine emissions.

Emission Certification Data Submitted by Honda Motor Corp. to EPA and CARB for the BF200A/BF225A Series engines.

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr
6.39	3.54	139.05

These factors are representative of the engines selected this year for the MSST watercraft. However, they may not be representative of any future engines that may replace these engines.

The emission factors to be used for this analysis are generic factors which are higher than the engine certification factors for the particular engines selected for the Proposed Action. The generic factors are computed to correspond to the federal 2006 emission standards, as discussed on the following page.

Federal 2006 Outboard Engine Emission Standard (Ref: 40 CFR 91.104)

$$NO_x \& HC \text{ (g/kW-hr)} = [0.25 \times (151 + 557/Ptx^{0.9})] + 6$$

where Ptx = engine rated output in kW

The emission standard is a NO_x+HC standard that is expressed by an exponential formula based on the engine horsepower rating. For a 200 HP engine, the formula works out to 46 g/kW-hr NO_x+HC. The ratio of NO_x to HC used to allocate this 46 g/kW-hr to individual pollutant emission factors is based on the measured emissions from seven MY2002 engine families in the 140 kW+ (200 HP+) size range that meet California 2001-2003 (same as federal 2006) emission standards. The CO factor is based on the highest three CO measurements out of the seven engine families that meet the standard.

Emission Factors Used for Outboard Motors

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	SOx g/kW-hr
14	32	140	1.3	1.2

A comparison of these default 'compliant' emission factors to the actual certification data for the engines selected for these boats indicates that this estimate will conservatively over-estimate NO_x, HC and CO for these new engines, and should be conservatively high for any future engines that may replace these engines during the life of the Proposed Action.

Available references documenting emission factors for outboard motors generally provide data for NO_x, HC, and CO only. For this analysis, PM10 and SO_x factors for gasoline engines were taken from U.S. EPA AP-42 Table 3.3-1 dated 10/96.

Estimated Emissions From Watercraft

Annual State of Hawaii AQCR

NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
2.77	6.33	27.68	0.26	0.25

Note (1)

(1) 179,367

kW-hrs per year in State of Hawaii AQCR, see Assumptions section of this worksheet.

Diurnal and refueling emissions for these watercraft are estimated to be only 17 lbs per year.

Emissions From Commuter and Tow Vehicles

Emission Factors Used for the Commuter Fleet

	NOx g/mi	HC g/mi	CO g/mi	PM10 g/mi	SOx g/mi	
Commuter Vehicles	1.1	1.3	16.5	0.96	0.1	Note (1)
Tow Vehicles	1.4	1.4	17.4	2.58	0.1	Note (2)

(1) These are national average emission factors using a fleet mix that is typical of commuter traffic.

These factors have not been refined to reflect local smog check programs, etc.

The fleet mix and emission factor calculation is done on the "Commute" sheet in this workbook.

(2) These are emission factors for Light-duty gasoline trucks (LDGV2, GVW 6000-8500 lbs)

The emission factor calculation is done on the "Commute" sheet in this workbook.

Estimated Emissions From Commuters in State of Hawaii AQCR

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Commuter Vehicles	1.31	1.51	18.81	1.10	0.09	(active duty and reservists)
Tow Vehicles	0.05	0.05	0.62	0.09	0.00	
Totals	1.35	1.56	19.43	1.19	0.10	

See Assumptions section of this worksheet for discussion of vehicle miles traveled.

Total Estimated Annual Emissions From Proposed Action

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
Annual State of Hawaii AQCR	4.12	7.88	47.11	1.46	0.34

General Conformity De Minimis Thresholds

Annual State of Hawaii AQCR

Cells with "--" in them indicate federal attainment for this pollutant in this area. No conformity determination is necessary for this pollutant in this air basin.

NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	Attainment
--	--	--	--	--	

General Conformity Regional Significance Thresholds (10% of regional budget)

Since future year budgets were not readily available, actual 1999 air emissions inventories for the counties were used as an approximation of the regional inventory. Because the Proposed Action is several orders of magnitude below significance, the conclusion would be the same, regardless of whether future year budget data set were used.

State of Hawaii AQCR Target Year Emissions Budgets

Year	Point and Area Sources Combined				
	NOx (tpy)	VOC (tpy)	CO (tpy)	PM10 (tpy)	SO2 (tpy)
1999	72,975	36,679	333,640	40,213	40,993

Source: USEPA-AirData NET Tier Report (<http://www.epa.gov/air/data/nettier.html>). Site visited on 6/29/04

Determination Significance (Significance Threshold = 10%)

Minimum - 1999	72,975	36,679	333,640	40,213	40,993
Proposed Action %	0.0056%	0.0215%	0.0141%	0.0036%	0.0008%

ASSUMPTIONS Based on estimates from San Pedro Coast Guard Facility (11/27/02)

Commute: The estimate of 20 miles commute assumes that each commute travels from one side of Ohau to the other and should be conservative.

Boats: Six Safeboats International 25' Response Boat Small (RBS)

Motors: twin 225 HP Honda outboard motors

Fuel Use: Not enough experience to estimate daily fuel consumption, but they know that these boats consume 15 gal/hr when cruising at 35 knots. They expect to cruise at 35 knots up to 20% of the time as they go out to pick up escorts or return from escort missions, and as they relocate within the harbor area.
The boat holds 125 gallons of fuel.

Duty: Two boats on harbor duty. 6 hr/day each would be a realistic estimate of how much time they will be running, rather than 12 hr/day.
Patrols may increase to 8-12 hours per day during military loadouts, but he would not anticipate a patrol of 48 consecutive hours (as previously assumed)
Two or three boats will be subject to deployment anywhere in the Pacific Islands. These boats will generally NOT cruise to their assignments but will be trailered to airport or harbors behind Ford F-350 gasoline pickups and then transported by other means. I should assume that the trucks with boat trailers will travel out and back 15 days per month.

Power Requirements for MSST Boats

http://www.boatmotors.com/outboard/outboard_motor_article.html

Lambrecht, Ralph. 2002. "Two-stroke conventional wisdom." Boat & Motor Dealer. April. 34-37

Mr Lambrecht gave results from comparative testing of 2002 model year 2-stroke outboards vs 4-stroke outboards. He did not cite who did the tests or what motors were tested. His point was that there is little difference in mileage and speed, and the 2-strokes meet emission standards.

Calculations

	gal/hr	gal/hr	Thermal Efficiency	Average	HP	HP
20.7' boat						
225 HP outboards						
4.5 to 4.7 mpg at 28 mph	6.0	6.2			70	73
2.7 to 3.2 mpg at 52 mph top speed	16.3	19.3	(a)	22.9%		
24' boat						
225 HP outboards						
3.1 mpg at 32 mph	10.3	10.3			121	121
2.4 to 2.6 mpg at 46 to 48 mph top speed	18.5	19.2	23.9%	23.0%		
20" boat						
135 HP outboards						
4 to 4.2 mpg at 21 mph	5.0	5.3			55	58
3 to 3.5 mpg at 37 to 43 mph top speed	12.3	12.3	21.5%	21.4%		
4.45 mpg at 28 mph (best economy)	6.3	6.3				

If we assume that the engines were putting out rated horsepower at top speed, then we can compute the thermal efficiency of these outboards based on the gallon per hour throughput and the rated output. Gasoline has 130,000 Btu/gal and there are 2546.5 Btus in a horsepower-hour.

a) The 3.2 mpg at 52 mph cannot be used in efficiency calculations because this was not the maximum speed for this engine/boat combination, so the engine was putting out less than 225 HP, and there is no way to know how many HP it was producing, so the thermal efficiency cannot be computed.

Overall Average 22.6% Thermal Efficiency
--

For the 200 HP engines used in this analysis, a 23% thermal efficiency will be assumed.

The power demand is hard to predict, because gas mileage likely starts fairly high at really low speeds, then dips somewhere in the 10-20 mph range, then maxes out at around 30 mph as the boat rises out of the water, then drops again as the boat approaches maximum speed.

From what I am seeing so far, my initial 50 HP guess for patrol load may have been accurate. However, to accommodate averaging in occasional relocations at above planing speed, I will assume an average load of 75 HP over the 12 hour day.

Average power output based on fuel consumption while on patrol:

Chief Petty Officer Mark Wilkins (Galveston) said on 11/26/02 that they use about 45 gal in a 12-hour day.

$$\frac{(3.75 \text{ gal/hr}) (130,000 \text{ Btu/gal}) (22.6\% \text{ thermal efficiency})}{3413 \text{ Btu/kW-hr}} = 32.28 \text{ kW}$$
$$= 43.30 \text{ HP}$$

Commute Emissions Factors

This analysis has not been refined with site-specific effects of the local smog check program, assumptions for hot and cold starts, etc. National average emission factors are used as a first approximation.

The vehicle mix is considered generally representative of commuters, rather than a profile of vehicles used by this specific demographic of employees. If it is determined that the results of this analysis are critical to the Conformity Analysis, a more refined estimate will be generated.

Description of POV Fleet and VMT Contributions Assumed for This Analysis

		POV VMT %	POV Avg Age
Light-duty gasoline vehicles (passenger cars)	LDGV	65.81%	5
Light-duty gasoline trucks (SUVs, pickups GVW <6000 lb)	LDGT1	25.13%	6
Light-duty gasoline trucks (GVW 6000-8500 lbs)	LDGT2	8.58%	5
Light-duty diesel vehicles (passenger cars)	LDDV	0.35%	6
Motorcycles	MC	0.13%	5
		100%	

EFs in g/mi from MOBILE5 Tables based on vehicle age in the year of interest.

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	14.6	1.3	1	0.072	0.71	14.6	1	1	0.072	0.71
LDGT1	21.9	1.9	1.6	0.096	1.08	20.5	1.6	1.3	0.096	1.08
LDGT2	17.8	1.5	1.5	0.098	2.58	16.9	1.2	1.2	0.098	2.58
HDGV	0	0	0	0	0	0	0	0	0	0
LDDV	1.4	0.5	1.1	0.116	0.8	1.4	0.5	1.1	0.116	0.8
LDDT	0	0	0	0	0	0	0	0	0	0
HDDV	0	0	0	0	0	0	0	0	0	0
MC	22.1	4.7	0.9	0.032	0.08	22.1	4.7	0.9	0.032	0.08

Reference: Tables 4-2 through 4-53, (AF IERA, July 2001)

Weighted Average Factors - adjusted for VMT weighting by vehicle class

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	9.60861	0.85556	0.65812	0.04738	0.46727	9.60861	0.65812	0.65812	0.04738	0.46727
LDGT1	5.50303	0.47743	0.40205	0.02412	0.27138	5.15124	0.40205	0.32666	0.02412	0.27138
LDGT2	1.52745	0.12872	0.12872	0.00841	0.22139	1.45022	0.10297	0.10297	0.00841	0.22139
LDDV	0.00489	0.00175	0.00385	0.00041	0.0028	0.00489	0.00175	0.00385	0.00041	0.0028
MC	0.02848	0.00606	0.00116	4.1E-05	0.0001	0.02848	0.00606	0.00116	4.1E-05	0.0001
Fleet Factor	16.6725	1.46951	1.19389	0.08036	0.96294	16.2434	1.17095	1.09277	0.08036	0.96294

Fleet age data are assumed, and follow the "typical" example calculations provided in the IERA reference.

The fleet age is assumed to stay constant. That is, the 'average' POV LDGV in 2000 is a 1995 model (5 years old), and the 'average' LDGV in the 2005 emission estimates is a 2000 model (five years old)

Note that PM emission factors include both exhaust and "fugitive" emissions (paved road, brake & tire dust, etc.).

National average motor vehicle emission factors generated by MOBILE5 are tabulated in the reference:

"Air Emissions Inventory Guidance Document For Mobile Sources at Air Force Installations", July 2001

Air Force Institute for Environment, Safety and Occupational Health Risk Analysis, Risk Analysis Directorate

Environmental Analysis Division, Brooks AFB, Texas.